

I-81 VIADUCT PROJECT - PHASE 1, CONTRACT 1

PIN 3501.90, Contract D900054

DB CONTRACT DOCUMENTS REQUEST FOR PROPOSALS

PART 7
ENGINEERING DATA
(PART 2 OF 2)

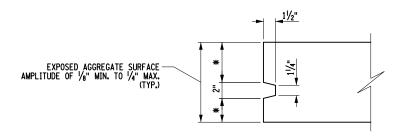
Final June 17, 2022

ENGINEERING DATA

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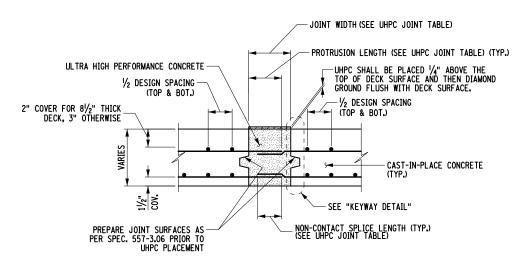
STRUCTURAL DETAILS
RESTORATION PLANS
HAZARDOUS WASTE CONTAMINATED MATERIALS ADDITIONAL INFORMATION
NON-STANDARD FEATURE JUSTIFICATIONS AND DESIGN CRITERIA TABLES
HIGHWAY BOUNDARY PLANS
ROW ACQUISITION MAPS

Structural Details



 PROVIDE DIMENSION TO AVOID INTERFERENCE WITH THE REINFORCEMENT.

KEYWAY DETAIL



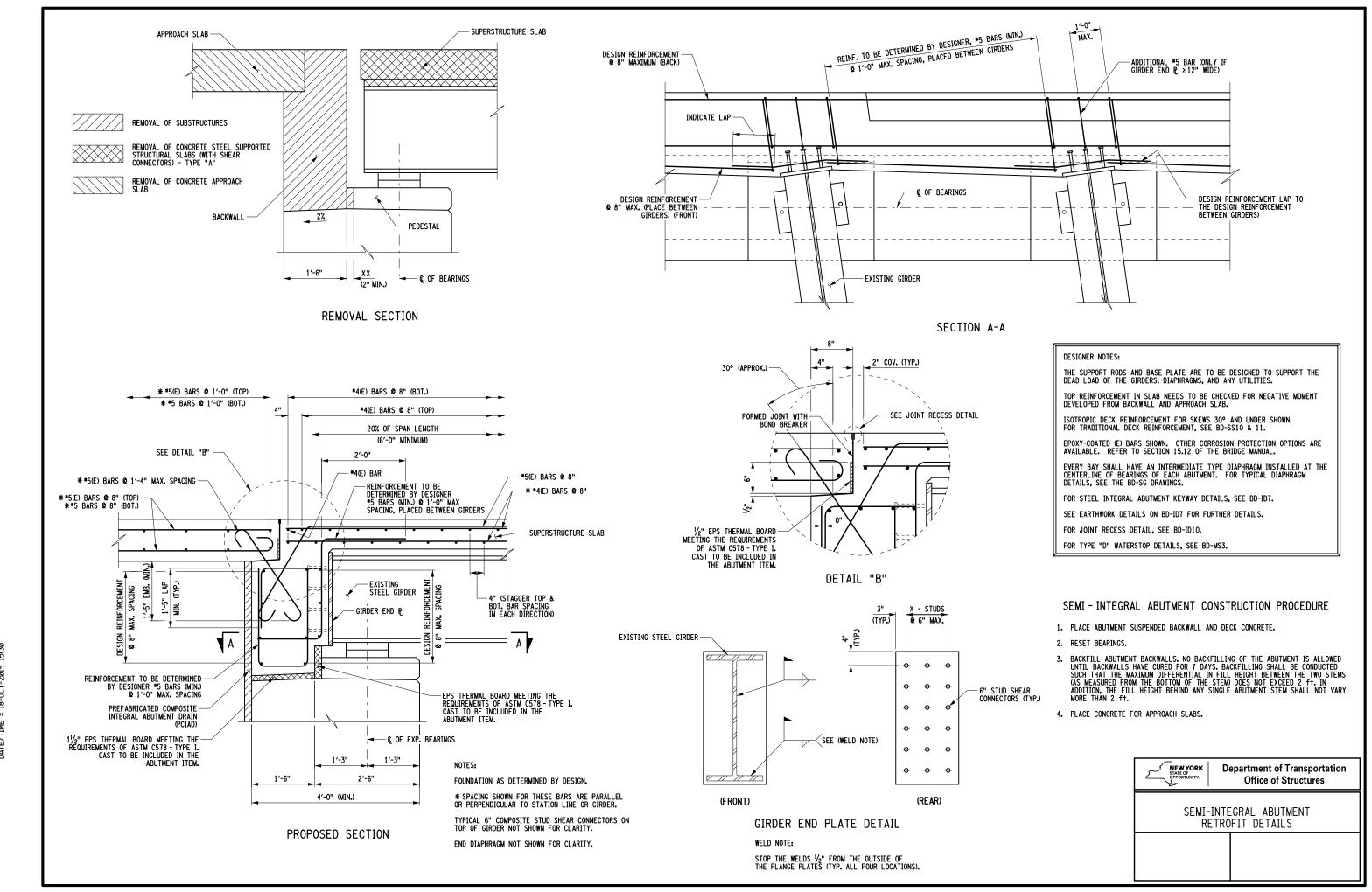
LONGITUDINAL UHPC JOINT

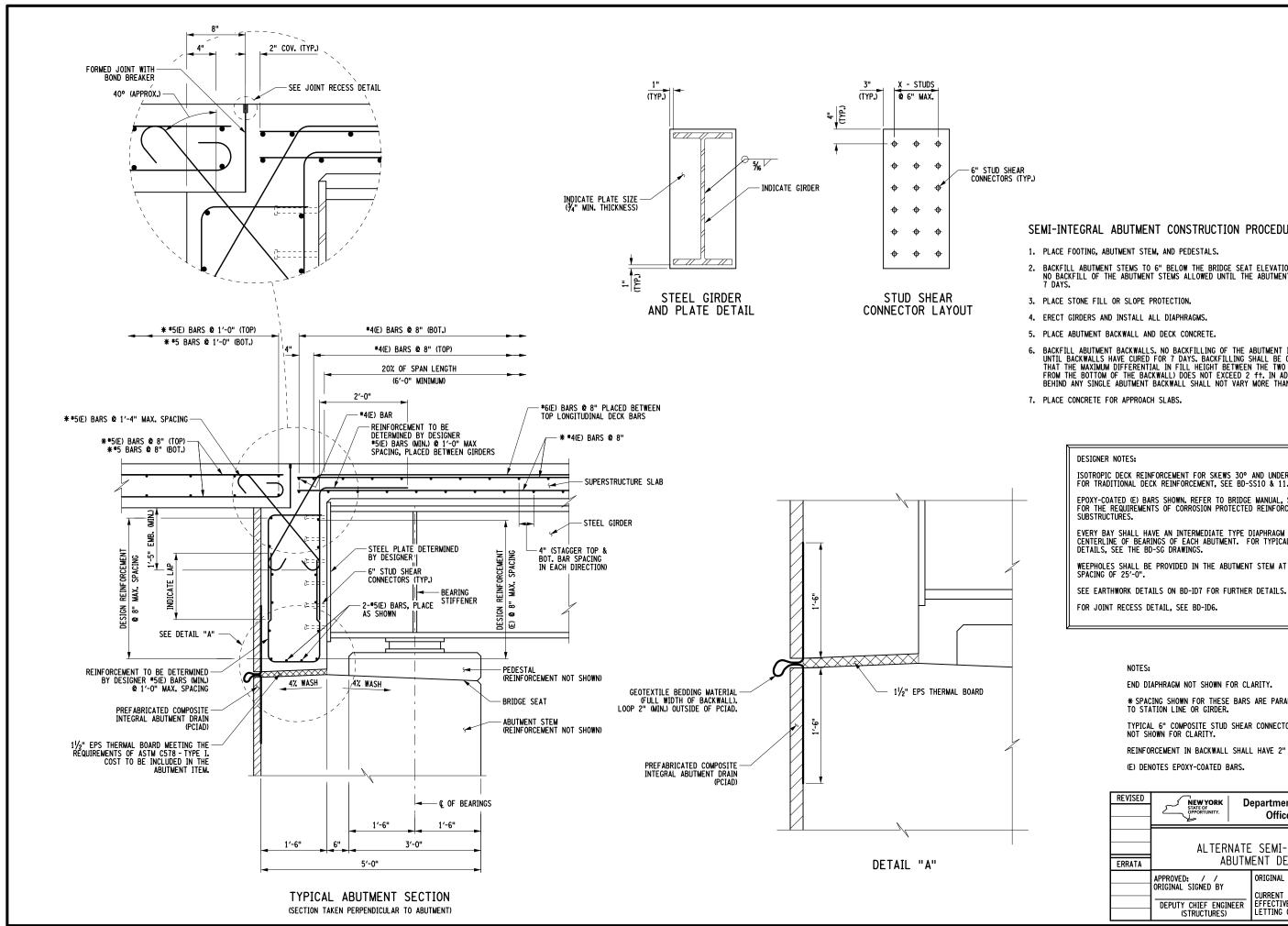
	UHPC JOINT TABLE						
BAR SIZE	JOINT PROTRUSION	JOINT PROTRUSION	SPLICE	CLEAR	SPACING		
DAR SIZE	WIDTH	LENGTH	LENGTH	MINIMUM	MAXIMUM		
#4	6"	5"	4"	1"	4"		
* 5	7"	6"	5"	11/4"	5"		
#6	9"	71/2"	6"	11/2"	6"		

DESIGNER NOTE:

UHPC JOINT TABLE IS APPLICABLE FOR ALL BAR TYPES WITH A YIELD STRENGTH NO GREATER THAN 75 KSI.







SEMI-INTEGRAL ABUTMENT CONSTRUCTION PROCEDURE

- 1. PLACE FOOTING, ABUTMENT STEM, AND PEDESTALS.
- 2. BACKFILL ABUTMENT STEMS TO 6" BELOW THE BRIDGE SEAT ELEVATION. NO BACKFILL OF THE ABUTMENT STEMS ALLOWED UNTIL THE ABUTMENTS HAVE CURED FOR
- 3. PLACE STONE FILL OR SLOPE PROTECTION.
- 4. ERECT GIRDERS AND INSTALL ALL DIAPHRAGMS.
- 5. PLACE ABUTMENT BACKWALL AND DECK CONCRETE.
- 6. BACKFILL ABUTMENT BACKWALLS. NO BACKFILLING OF THE ABUTMENT IS ALLOWED UNTIL BACKWALLS HAVE CURED FOR 7 DAYS. BACKFILLING SHALL BE CONDUCTED SUCH THAT THE MAXIMUM DIFFERENTIAL IN FILL HEIGHT BETWEEN THE TWO ABUTMENTS (AS MEASURED FROM THE BOTTOM OF THE BACKWALL) DOES NOT EXCEED 2 ft. IN ADDITION, THE FILL HEIGHT BEHIND ANY SINGLE ABUTMENT BACKWALL SHALL NOT VARY MORE THAN 2 ft.
- 7. PLACE CONCRETE FOR APPROACH SLABS.

DESIGNER NOTES:

ISOTROPIC DECK REINFORCEMENT FOR SKEWS 30° AND UNDER SHOWN. FOR TRADITIONAL DECK REINFORCEMENT, SEE BD-SS10 & 11.

EPOXY-COATED (E) BARS SHOWN. REFER TO BRIDGE MANUAL, SECTION 15.12 FOR THE REQUIREMENTS OF CORROSION PROTECTED REINFORCEMENT IN

EVERY BAY SHALL HAVE AN INTERMEDIATE TYPE DIAPHRAGM INSTALLED AT THE CENTERLINE OF BEARINGS OF EACH ABUTMENT. FOR TYPICAL DIAPHRAGM DETAILS, SEE THE BD-SG DRAWINGS.

WEEPHOLES SHALL BE PROVIDED IN THE ABUTMENT STEM AT A MAXIMUM SPACING OF 25'-0".

FOR JOINT RECESS DETAIL, SEE BD-ID6.

END DIAPHRAGM NOT SHOWN FOR CLARITY.

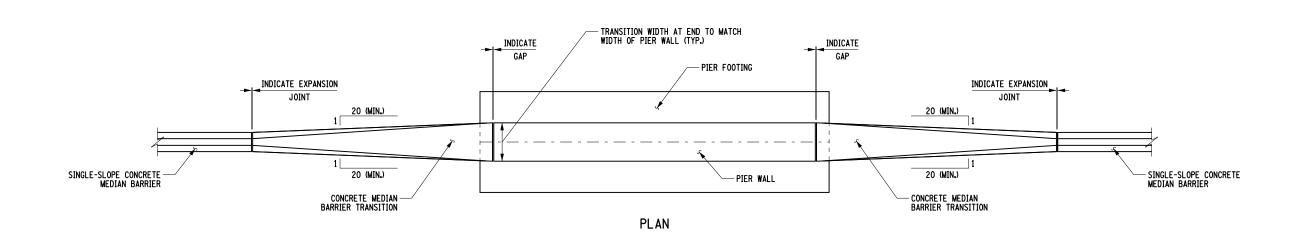
* SPACING SHOWN FOR THESE BARS ARE PARALLEL OR PERPENDICULAR TO STATION LINE OR GIRDER.

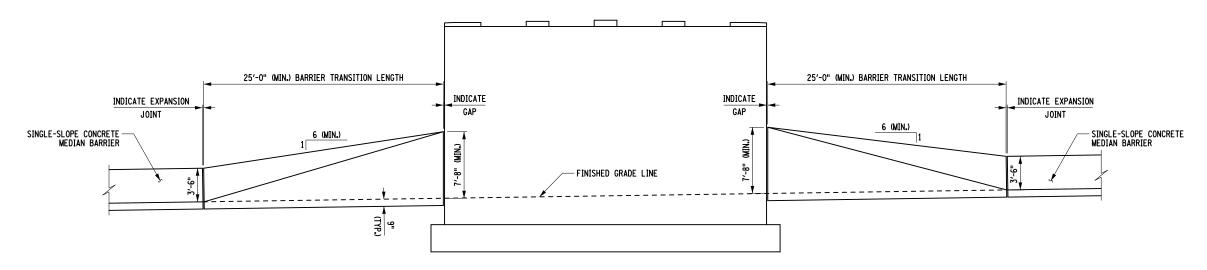
TYPICAL 6" COMPOSITE STUD SHEAR CONNECTORS ON TOP OF GIRDER NOT SHOWN FOR CLARITY.

REINFORCEMENT IN BACKWALL SHALL HAVE 2" COVER.

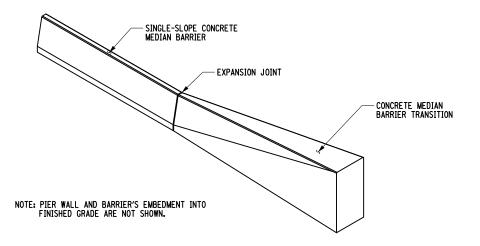
(E) DENOTES EPOXY-COATED BARS.

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	ALTERNATE SEMI-INTEGRAL			
ERRATA	ABUTMENT DETAILS			
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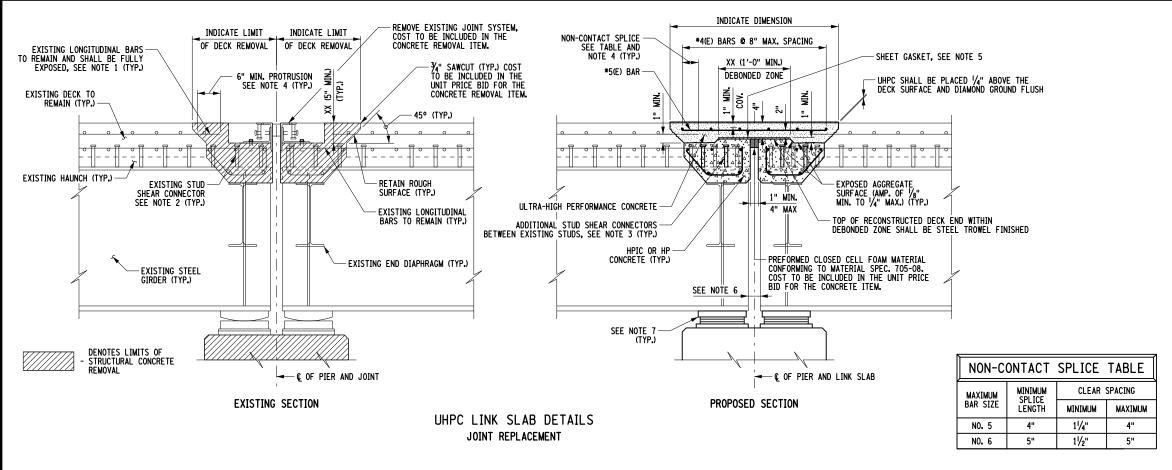


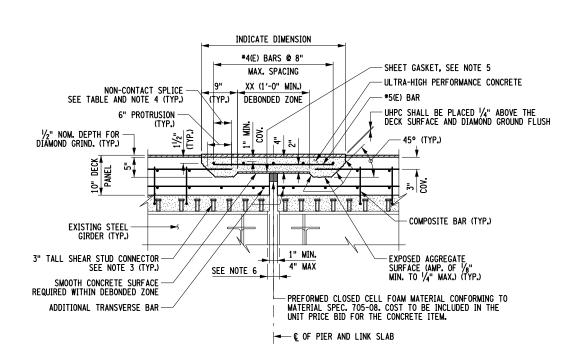
ELEVATION



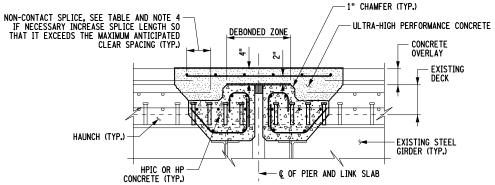
ISOMETRIC OF BARRIER TRANSITION

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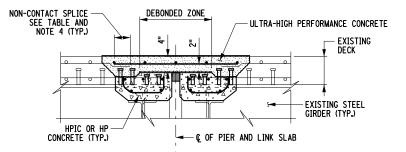




UHPC LINK SLAB DETAIL
PRECAST DECK PANELS
(DECK REPLACEMENT SHOWN, NEW SUPERSTRUCTURE SIMILAR)



SCHEMATIC UHPC LINK SLAB DETAIL
JOINT REPLACEMENT - CONCRETE OVERLAY



SCHEMATIC UHPC LINK SLAB DETAIL JOINT REPLACEMENT - WITHOUT GIRDER HAUNCH

DESIGNER NOTES:

THE EPOXY COATED BARS SHOWN MAY NEED TO BE CHANGED TO MEET THE REINFORCEMENT CORROSION PROTECTION REQUIREMENTS SPECIFIED IN THE BRIDGE MANUAL.

THE MINIMUM GIRDER END GAP SHALL BE INDICATED IN THE NOTES.
THIS GAP SHALL BE MAXIMIZED TO THE LARGEST EXTENT FEASIBLE
WHILE CONSIDERING THE EXISTING GAP, ALLOWANCES FOR MINOR
AMOUNTS OF SUPERSTRUCTURE MOVEMENT/SHIFTING DURING
CONSTRUCTION OPERATIONS, AND PREVENTING THE GIRDER'S BOTTOM
FLANGES FROM CONTACTING EACH OTHER WHEN ADJOINING SPANS ARE
SIMULTANEOUSLY SUBJECT TO LIVE LOADS.

THE PRECAST DECK PANELS DETAIL DEPICTS TRADITIONAL REINFORCEMENT AND A STANDARD UHPC HAUNCH. THIS DETAIL SHALL BE MODIFIED WHEN USING ISOTROPIC REINFORCEMENT AND/OR A LOW PROFILE HAUNCH.

WHEN USING AN ASPHALT OVERLAY, IT SHALL BE PLACED OVER THE UHPC LINK SLAB. PLACING THE UHPC 0.25 INCHES ABOVE THE CONCRETE DECK SURFACE AND GRINDING FLUSH IS STILL REQUIRED.

SCHEMATIC DETAILS ARE ONLY INTENDED TO SHOW ACCEPTABLE MODIFICATIONS TO THE LINK SLAB, AND DECK END, GEOMETRY FOR VARIOUS EXISTING CONDITIONS. ALL OF THE REQUIREMENTS AND ANNOTATIONS PROVIDED IN THE UHPC LINK SLAB JOINT REPLACEMENT DETAILS SHALL APPLY AND BE SHOWN ON THE CONTRACT PLANS.

NOTES:

- 1. WHERE EXISTING BARS ARE DAMAGED DURING REMOVAL OF EXISTING DECK CONCRETE, DRILL AND GROUT *5(E) DOWELS CENTERED BETWEEN EXISTING DECK BARS TO MATCH SPACING AT NO COST TO THE STATE. GROUT MATERIAL CONFORMING TO NYS MATERIAL SPECIFICATION 701-05 INSTALLED IN ACCORDANCE WITH THE NYS STANDARD SPECIFICATION SECTION 586-3.01. NON-DESTRUCTIVE INVESTIGATION AND PULL DILL TEST NOT REGULIEFD.
- 2. EXISTING STUD SHEAR CONNECTORS MAY REMAIN UNLESS THEY INTERFERE WITH THE DEBONDED ZONE OF THE UHPC LINK SLAB.
- 3. STUD SHEAR CONNECTOR SPACING UNDERNEATH THE LINK SLAB SHALL NOT EXCEED 5 INCHES IN ANY DIRECTION. THE USE OF OTHER TYPES OF SHEAR CONNECTORS ARE PROHIBITED.
- 4. LONGITUDINAL REINFORCEMENT SPLICES ARE NOT PERMITTED IN THE DEBONDED ZONE.
- 5. COMPRESSED SYNTHETIC SHEET GASKET (0.0625 INCH THICK SHEET, TREATED BOTH SIDES), CONFORMING TO MATERIAL SPECIFICATION 728-06, SHALL COVER THE ENTIRE SURFACE OF RECONSTRUCTED DECK ENDS, OR PRECAST PANEL ENDS, WITHIN THE DEBONDED ZONE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE CONCRETE ITEM.
- 6. A MINIMUM GIRDER END GAP OF ___ INCHES SHALL BE PROVIDED BETWEEN ADJACENT SPANS. THIS MUST BE VERIFIED PRIOR TO POURING THE LINK SLAB. ANY ADJUSTMENTS REQUIRED SHALL BE MADE AT NO ADDITIONAL COST TO THE STATE.
- 7. UPON INSTALLATION OF THE PROPOSED BEARINGS, THE CONTRACTOR SHALL INSTALL TEMPORARY BLOCKING TO ENSURE GLOBAL STABILITY OF THE ENTIRE SUPERSTRUCTURE SYSTEM PRIOR TO THE INSTALLATION OF THE LINK SLABIS, THE CONTRACTOR SHALL SUBMIT THE TEMPORARY BLOCKING PROCEDURE TO THE DCES FOR APPROVAL PRIOR TO THE REMOVAL OF THE EXISTING BEARINGS. THE COST OF TEMPORARY BLOCKING SHALL BE INCLUDED IN THE BEARING REMOVAL ITEMS. AS PART OF THE SUBMITTAL, THE CONTRACTOR MUST SUBMIT A SCHEDULE FOR CHECKING THAT THE BLOCKING MECHANISMS INSTALLED ARE FUNCTIONING AS INTENDED, AND FOR PERFORMING ROUTINE MAINTENANCE, SUCH AS MAKING ADJUSTMENTS FOR THE SUPERSTRUCTURE'S THERMAL MOVEMENTS, FOR THE DURATION OF THE TIME THAT THEY REMAIN IN PLACE.
- 8. IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 565-3.05
 AND AFTER ALL LINK SLABS HAVE CURED FOR A MINIMUM OF SEVEN
 DAYS, THE ALIGNMENT OF ALL EXPANSION BEARINGS SHALL BE
 MEASURED AND ADJUSTMENTS MADE IF REQUIRED.
- 9. (E) DENOTES EPOXY COATED BARS.

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	DEPUTY CHIEF ENGINEER (STRUCTURES)	CURRENT ISSUED UNDER EB EFFECTIVE WITH THE LETTING OF / /

EXISTING CONCRETE BARRIER

CONSTRUCTION JOINT (TYP.)

EXISTING BAR TO REMAIN (TYP.) -

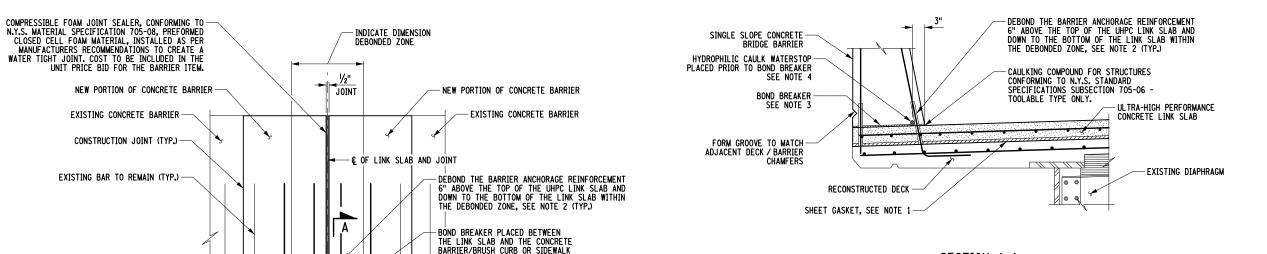
RECONSTRUCTED DECK END (TYP.)

ELEVATION RELIEF JOINT OVER UHPC LINK SLAB
(SINGLE SLOPE CONCRETE BARRIER SHOWN, SIDEWALK AND BRUSH CURB SIMILAR)

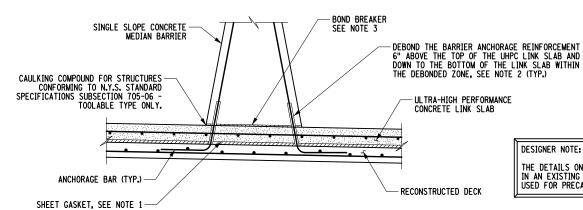
(VERTICAL FACED CONCRETE PARAPET WITH SIDEWALK)

SIDEWALK

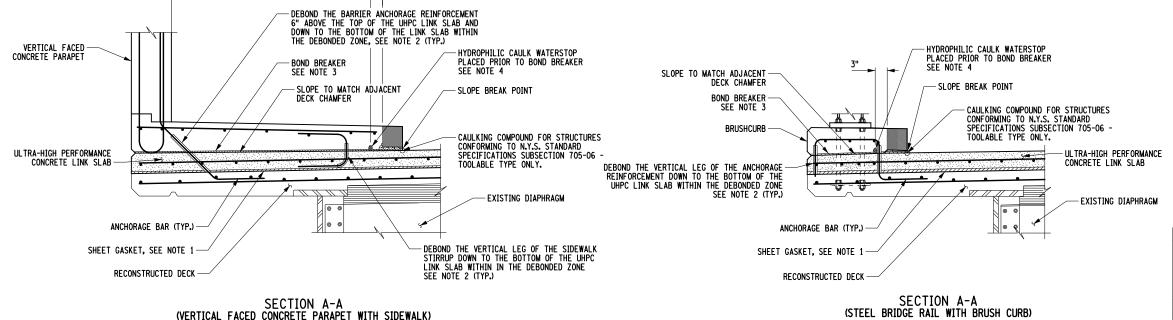
STEEL GIRDER (TYP.)



SECTION A-A (SINGLE SLOPE CONCRETE BRIDGE BARRIER)



SECTION A-A (SINGLE SLOPE CONCRETE MEDIAN BARRIER)



SEE SECTION A-A AND NOTE 3

- EXISTING DECK

ULTRA-HIGH PERFORMANCE

SHEET GASKET, SEE NOTE 1

CONCRETE LINK SLAB

DESIGNER NOTE:

THE DETAILS ON THIS DRAWING DEPICT A UHPC LINK SLAB INSTALLED IN AN EXISTING CAST-IN-PLACE DECK. SIMILAR DETAILS SHALL BE USED FOR PRECAST DECK PANELS.

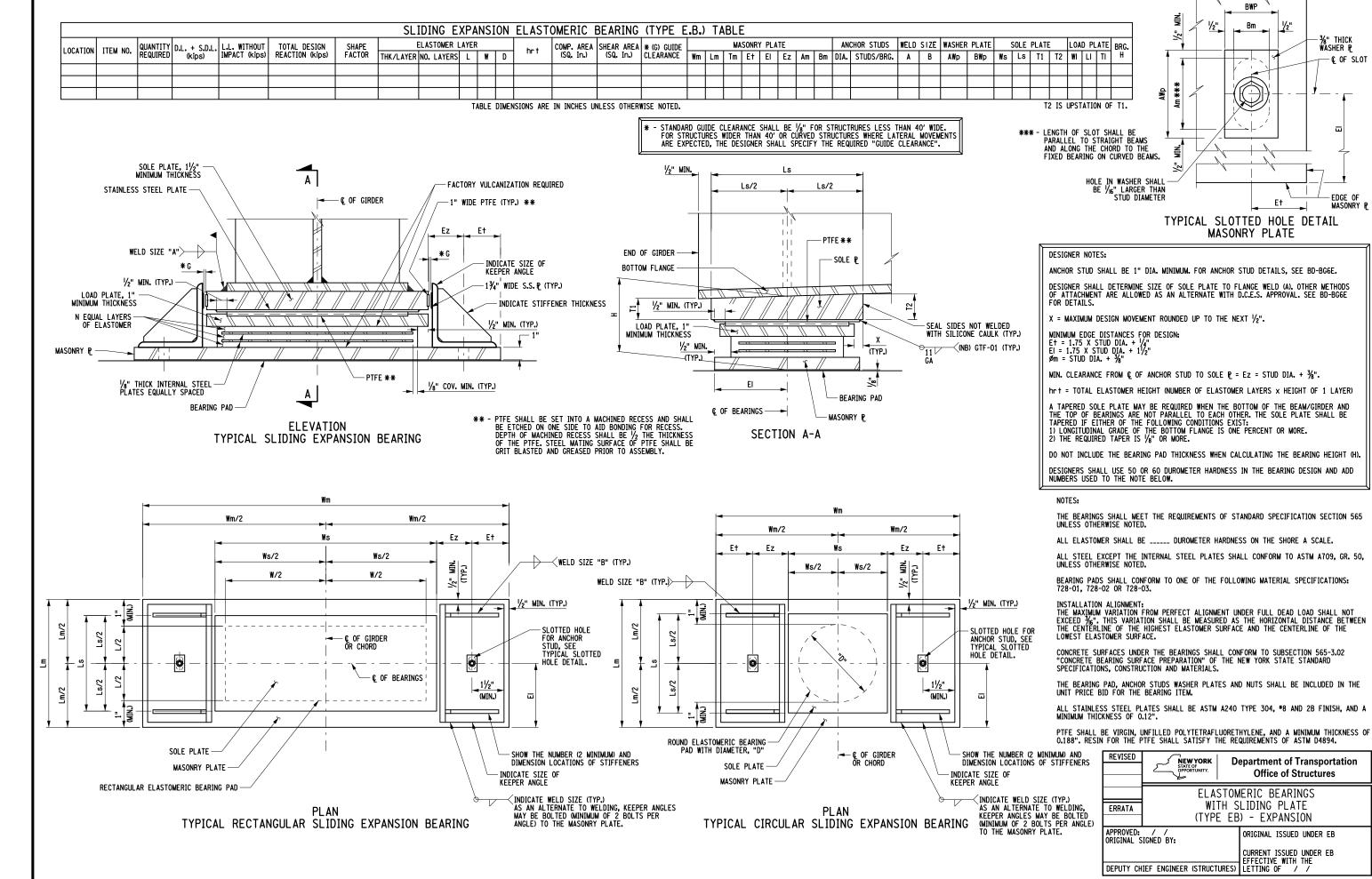
NOTES:

- 1. COMPRESSED SYNTHETIC SHEET GASKET (0.0625 INCH THICK SHEET, TREATED BOTH SIDES), CONFORMING TO MATERIAL SPECIFICATION 728-06, SHALL COVER THE ENTIRE SURFACE OF RECONSTRUCTED DECK ENDS, OR PRECAST PANEL ENDS, WITHIN THE DEBONDED ZONE. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR THE CONCRETE ITEM.
- 2. DEBOND ALL REINFORCEMENT THAT EXTENDS OUT OF THE UHPC LINK SLAB WITHIN THE DEBONDED ZONE AS INDICATED IN THE DETAILS. DEBONDING SHALL BE ACCOMPLISHED BY WRAPPING BARS WITH A MINIMUM OF 3 LAYERS OF HEAVY DUTY DUCT TAPE.
- 3. BOND BREAKER USED AT THE INTERFACE OF THE LINK SLAB AND BARRIER, SIDEWALK, OR BRUSH CURB SHALL BE SIKA BONDBREAKER W, WAX BASED BOND BREAKER MATERIAL, OR APPROVED EQUAL.
- 4. THE COST OF THE HYDROPHILIC CAULK/SEAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE LINK SLAB CONCRETE ITEM. THE CAULK/SEAL MANUFACTURER AND INSTALLATION SHALL BE APPROVED BY THE ENGINEER. THE HYDROPHILIC CAULK/SEAL SHALL BE PROTECTED
- 5. THE BARS SHOWN IN THE BARRIER ARE THE ANCHORAGE BARS ORIGINATING IN THE DECK. FOR BARRIER REINFORCEMENT DETAILS SEE THE BD-RCB SERIES.

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FILE NAME DATE/TIME





UHPC Link Slab Design

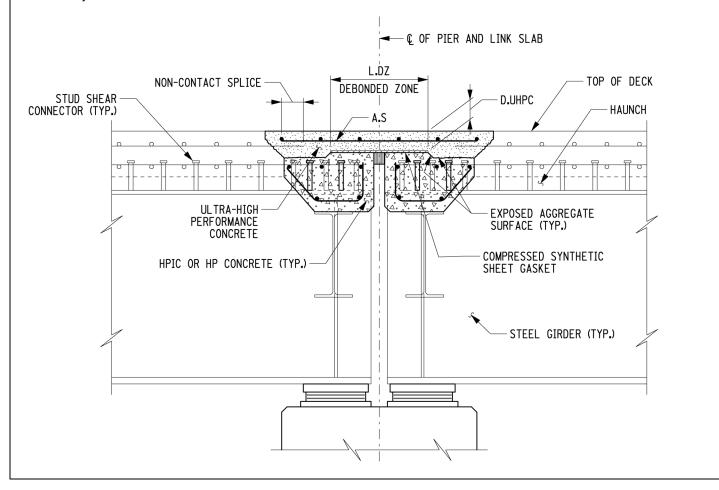
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	PIN:	
Job Title:		

EXAMPLE

The NYSDOT Office of Structures has developed an innovative link slab design utilizing Ultra-High Performance Concrete (UHPC). The results of our investigation into the behavior of UHPC link slabs showed that the force required to strain the UHPC in pure tension is extremely large and nearly all of the translation, due to the girder's end rotation, will occur at the bearings. Therefore, the link slab design assumes that the UHPC section is subject to bending only. Although not accounted for in the design of the link slab, due to the conservative approach taken for bending, the link slab also acts as a semi-rigid link that transfers lateral loads between spans.

Our design uses a strain based analysis, where the extreme fiber tensile strain in the UHPC is determined by the amount of girder end rotation, under the assumption of linearly elastic flexural behavior. Using stress-strain relationships, the location of the neutral axis is found through an iterative algorithm. Upon convergence of the assumed and calculated neutral axis location, the tensile strain and compressive stress in the UHPC, along with the stress in the longitudinal steel reinforcement, is computed and compared to allowable values.

In tension, UHPC develops closely spaced micro-cracks as a result of its high strength steel fibers being dispersed throughout a matrix of fine aggregates and supplementary cementitious materials. Due to this unique tensile behavior, UHPC has the ability to withstand ultimate tensile strains up to 0.007. It is this attribute that allows UHPC link slabs to accommodate the girder's end rotations within a relatively short length. For design, a maximum strain of 0.0035 at the extreme tensile fiber was chosen in order to limit the crack widths to a level that will not permit the penetration of moisture and chlorides, ensuring a highly durable solution for the elimination of deck joints.





UHPC Link Slab Design

EXAMPLE

User Inputs

- Indicates user input

 $f_v := 60 \text{ksi}$

reinforcement yield strength

 $E_s := 29000 ksi$

reinforcement modulus of elasticity (LRFD 5.4.3.2)

$$A_{S} := \frac{0.31 \text{in}^2}{8 \text{in}} = 0.47 \cdot \frac{\text{in}^2}{\text{ft}}$$

area of longitudinal reinforcement at joint

 $\theta_{LL} := 0.00506$ rad

unfactored live load girder end rotation (use average rotation of linked spans if they are not equal)

 $L_{dz} := 16in$

debonded zone length

 $d_{bf} := 6.32ft$

vertical distance from top of deck to bottom of bottom flange

Note: The following inputs are standard and not editable by the user.

 $E_c := 8000 ksi$

UHPC compressive modulus of elasticity

 $f_{uhpc.t.all} := 1.2ksi$

UHPC tensile cracking stress

 $f_{uhpc.c.all} := -14ksi$

maximum allowable UHPC compressive stress

$$\varepsilon_{\text{uhpc.t.all}} := 3500 \ 10^{-6}$$

maximum allowable UHPC tensile strain

 $d_{uhpc} := 4in$

depth of UHPC

Flexural Analysis of Link Slab

width of section b := 1 ft

 $A_s := A_s \cdot b = 0.47 \cdot in^2$

area of reinforcement within section

 $c := \begin{bmatrix} eci \leftarrow 1 & 10^{-6} \\ ec \leftarrow 1 \\ i \leftarrow 1 \end{bmatrix}$

iterative algorithm to determine distance from bottom of section to neutral axis

while eci < ec

 $h := \, d_{uhpc} = 4.0 \cdot in \qquad \text{ depth of UHPC}$

 $f_t := f_{uhpc.t.all} = 1.2 \cdot ksi$

assumed maximum tensile stress of UHPC

 $\theta := 1.75 \cdot \theta_{LL} = 0.51 \cdot \deg$

Strength I girder end rotation

$$fc \leftarrow eci \cdot E_c$$

$$c \leftarrow \frac{\sqrt{A_s^2 \cdot E_s^2 \cdot eci}^2 + fc \cdot A_s \cdot E_s \cdot b \cdot h \cdot eci + b^2 \cdot f_t^2 \cdot h^2} + b \cdot f_t \cdot h - A_s \cdot E_s \cdot eci}{b \cdot f_c + 2 \cdot b \cdot f_t}$$

$$ec \leftarrow \frac{-2 \cdot \theta \cdot c}{L_{dz}}$$

$$eci \leftarrow eci + 0.1 \cdot 10^{-6}$$

$$i \leftarrow i + 1$$

out
$$\leftarrow$$
 "Error" if $(c < 0 \text{in}) \lor (c > d_{uhpc}) \lor \left(\frac{\text{max}(|ec|, eci)}{\text{min}(|ec|, eci)} - 1 > 5\%\right)$

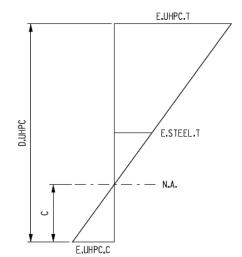
out \leftarrow c otherwise

return out

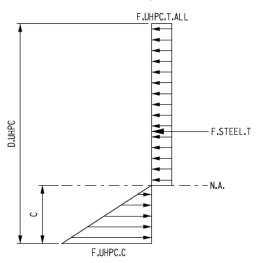
UHPC Link Slab Design

EXAMPLE

Strain Diagram



Stress Diagram



distance from bottom of section to neutral axis $c = 1.04 \cdot in$

$$\varepsilon_{uhpc.t} \coloneqq \frac{2 \cdot \theta \cdot \left(d_{uhpc} - c\right)}{L_{dz}} = 3280 \cdot 10^{-6} \qquad \text{tensile strain in UHPC}$$

$$\varepsilon_{s.t} \coloneqq \frac{2 \cdot \theta \cdot \left(\frac{d_{uhpc}}{2} - c\right)}{L_{dz}} = 1067 \cdot 10^{-6} \qquad \text{tensile strain in reinforcement}$$

$$f_{s,t} \coloneqq \epsilon_{s,t} \cdot E_s = 30.93 \cdot ksi \qquad \qquad \text{tensile stress in reinforcement}$$

$$\varepsilon_{uhpc.c} \coloneqq \frac{-2 \cdot \theta \cdot c}{L_{dz}} = -1147 \cdot 10^{-6}$$
 compressive strain in UHPC

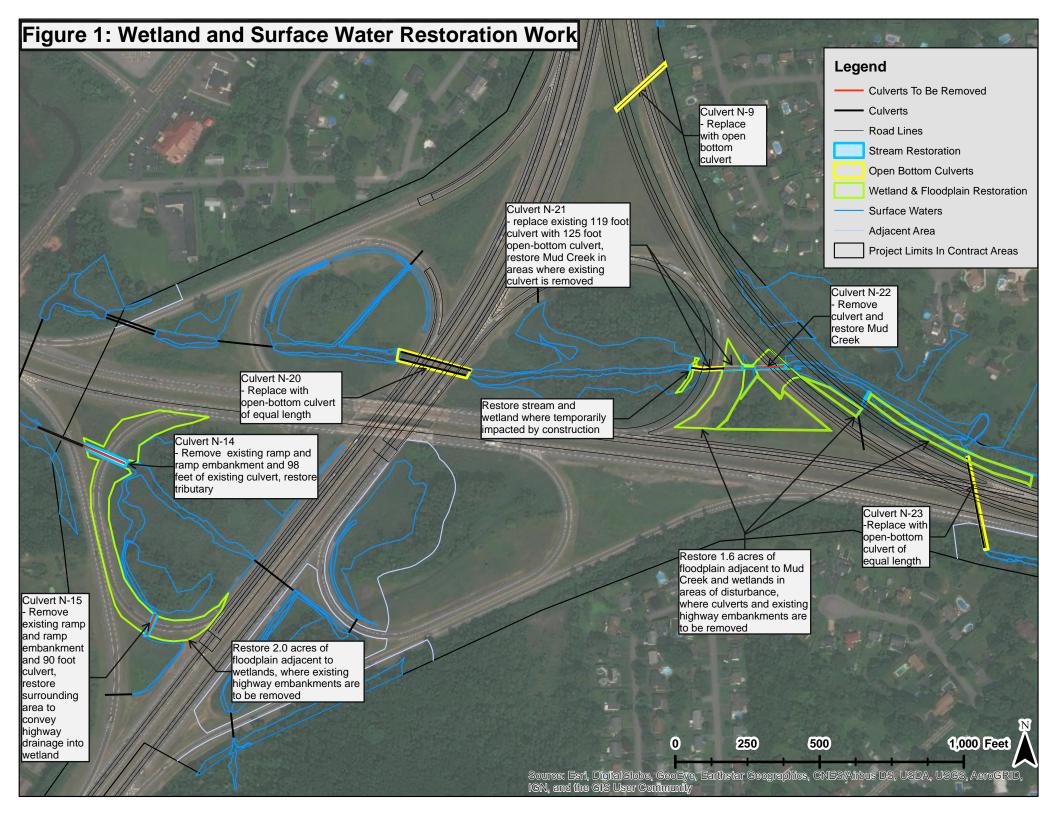
$$f_{uhpc.c} \coloneqq \epsilon_{uhpc.c} \cdot \mathrm{E}_c = -9.18 \cdot \mathrm{ksi} \qquad \qquad \text{compressive stress in UHPC}$$

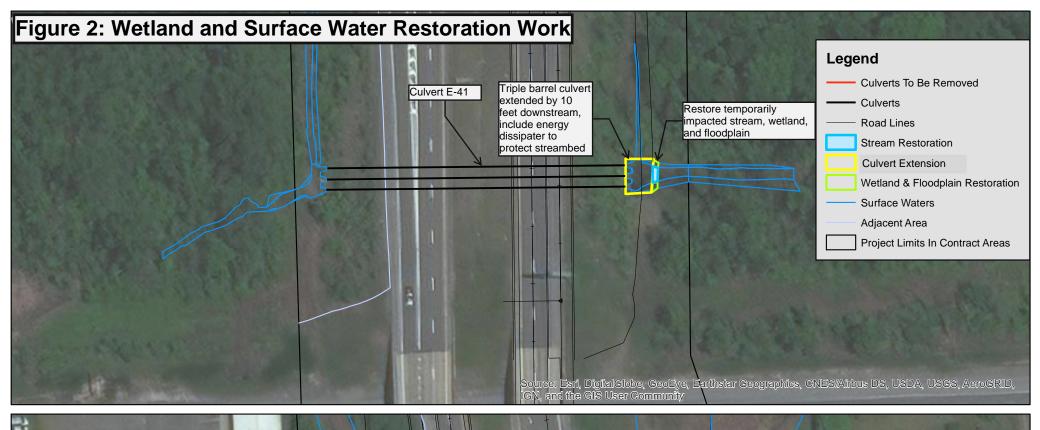
$$d_{gap.min} \coloneqq 2 \cdot \theta \cdot \left\lceil d_{bf} - \left(d_{uhpc} - c \right) \right\rceil = 1.29 \cdot in \qquad \text{minimum required girder end gap}$$

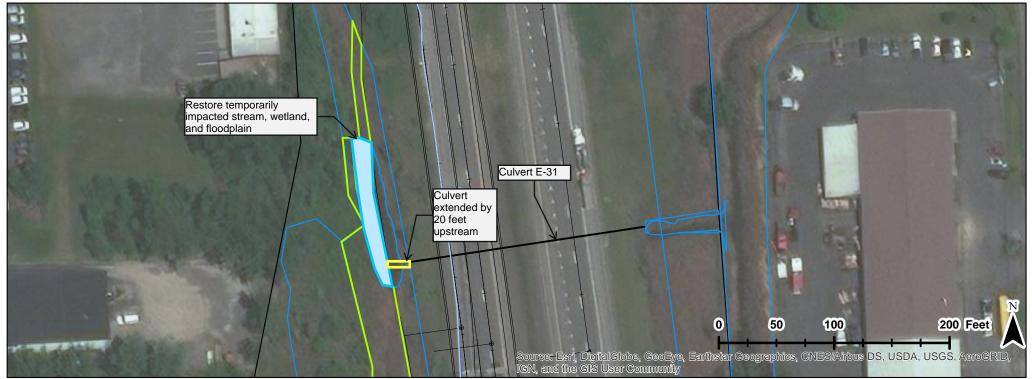
Analysis Results

$$R = \begin{pmatrix} \text{"Analysis Criteria"} & \text{"Actual"} & \text{"Allowable"} & \text{"Design Ratio"} & \text{"Pass/Fail"} \\ \text{"Tensile Strain in UHPC } (\mu\epsilon)\text{"} & 3280.41 & 3500.00 & 1.07 & \text{"Pass"} \\ \text{"Stress in Reinforcement (ksi)"} & 30.93 & 60.00 & 1.94 & \text{"Pass"} \\ \text{"Compressive Stress in UHPC } (\mu\epsilon)\text{"} & -9.18 & -14.00 & 1.53 & \text{"Pass"} \\ \text{"Minimum Girder End Gap (in)"} & \text{"----"} & 1.29 & \text{"----"} & \text{"----"} \\ \end{pmatrix}$$

Restoration Plans







General Ecology - Culverts	Action Summary	NYSDOT Standard Specifications	Special Specifications
Outfall-N-1	Pipe replacement	Section 206 Trench, Culvert, and Structure Excavation	A highway drainage pipe (ex. 24" RCP), Outfall-N-1, that currently outlets into dry swale densely populated with common reed (in triangular interchange area north of Mud Creek/Wetland 10L, where an infiltration or detention basin is proposed) would be reconstructed and extended during HWY ROW reconstruction.
Outfall N-2	Pipe replacement	Section 206 Trench, Culvert, and Structure Excavation, may need Special spec 555.10000006 Abandon Existing Culvert	A highway drainage pipe (ex. 36" CMP), Outfall-N-2, that currently outlets to a steep wet-weather-flow tributary to Mud Creek would be relocated, requiring the construction of a new drainage pipe. There is erosion downstream of the existing outfall; the Design-Builder shall conduct a H&H analysis to ensure no erosion will occur downstream of the new drainage pipe and/or install outfall protection, an energy dissipator, and/or possibly lightly reinforce the ex channel downstream of the outfall. Coordination with the Geotechnical Consultant is recommended.
Culvert E-41	Culvert extension	Section 206 Trench, Culvert, and Structure Excavation, Special spec 553.010001 Coffer Dam	Design-Builder shall extend the existing triple barrel culvert structure 10 feet downstream into the unnamed tributary to North Branch Ley Creek, creating 134 linear feet of additional culvert and reducing the creek length to 40 linear feet, and reduce the surface water area to 400 square feet. The extended culvert outfall shall include an energy dissipator or similar to protect the streambed downstream of the culvert from erosion. NYSDEC specifies that the width of the structure shall be 1.25 times the normal width of the streambed. The overall culvert capacity should be able to accommodate expected high flows. There is a special spec for extension of a CMP culvert with a paved invert; this could be potentially be modified for this culvert (603.07911806)
Culvert E-31	Culvert extension	Section 206 Trench, Culvert, and Structure Excavation, Special spec 553.010001 Coffer Dam	Design-Builder shall extend culvert by 20 feet into the upstream wetland area. NYSDEC specifies that rip rap shall be used as head wall protection to prevent scouring around the inlet and outlet of the culvert.
Culvert N-6	Replace with Open Bottom Culvert	Section 206 Trench, Culvert, and Structure Excavation, Special spec 553.010001 Coffer Dam, Section 620 Bank and Channel Protection	Design-Builder shall extend culvert by 21 feet to connect with the existing wetland; at minimum, the culverts must have a width at bankfull (1.25 x Bankfull width) and would be embedded at least 20 percent at the inlet
Culvert N-8	Replace with Open Bottom Culvert	Section 206 Trench, Culvert, and Structure Excavation, Special spec 553.010001 Coffer Dam, Section 620 Bank and Channel Protection	The Design-Builder shall extend the culvert by 64 feet to accommodate the new HWY ROW and safely convey the South Branch of Pine Grove Brook; at minimum, the culverts must have a width at bankfull (1.25 x Bankfull width) and would be embedded at least 20 percent at the inlet
Culvert N-9	Replace with Open Bottom Culvert	Section 206 Trench, Culvert, and Structure Excavation	The Design-Builder shall replace the existing culvert with an open bottom culvert, and extend the length by 75 feet into the triangular interchange area to accommodate the new highway geometry
Culvert N-14	Demolish ramp, ramp embankment, and 98 feet of existing culvert	Section 206 Trench, Culvert, and Structure Excavation, Special spec 555.10000006 Abandon Existing Culvert	The Design-Builder shall remove the existing ramp and culvert and grade the areas in order to implement the Restoration Plan. Culvert N-14 is currently 234 linear feet, 98 linear feet of which would be removed from the demolition area (the remainder of the pipe is needed to maintain drainage patterns under the remaining HWY ROW ramp.)
Culvert N-15	Demolish ramp, ramp embankment, and existing 90 foot Culvert	Section 206 Trench, Culvert, and Structure Excavation, Special spec 555.10000006 Abandon Existing Culvert	The Design-Builder shall remove the existing ramp and 80 foot long culvert and grade the areas in order to implement the Restoration Plan.
Culvert N-20	Replace with Open Bottom Culvert	Section 206 Trench, Culvert, and Structure Excavation, Special spec 553.010001 Coffer Dam	The Design-Builder shall replace the existing culvert with an open bottom culvert. At minimum, the culvert must have a width at bankfull (1.25 x Bankfull width) and would be embedded at least 20 percent at the inlet. Design-Builder shall use H&H modeling to ensure sufficient capacity for bankfull storm event and flood events. Current culvert sizes may be too small. Inlets and outlets need to be embedded in the embankment and protected with riprap to prevent scour - H&H modeling will help determine erosive forces and extent of protection needed. Any area disturbed during construction shall be stabilized after.
Culvert N-21	Replace with Open Bottom Culvert, further downstream from original culvert, to accommodate new ROW geometry	Section 206 Trench, Culvert, and Structure Excavation, Special spec 553.010001 Coffer Dam	The Design-Builder shall replace the existing culvert with an open bottom culvert. At minimum, the culvert must have a width at bankfull (1.25 x Bankfull width) and would be embedded at least 20 percent at the inlet. The Design-Builder shall shift the Culvert N-21 downstream. The open bottom culvert would be 6 feet longer than the existing culvert. It would result in a decrease in length to the section of Mud Creek between N-21 and N-20, which is currently 839 linear feet (0.40 acres) and would be reduced to 795 linear feet (0.38 acres). This would result in a 44 linear foot decrease in length, or 0.02 acres of surface water.
Culvert N-23 and N-21	Bridge and retaining wall construction	Section 206 Trench, Culvert, and Structure Excavation, Special spec 553.010001 Coffer Dam	The Design-Builder shall construct a new bridge between the existing N-23 and N-21 culverts. The Design-Builder shall avoid bridge construction in any portions of Mud Creek and shall avoid raising the floodplain where possible.

Culvert N-23	Replace with Open Bottom Culvert	Section 206 Trench, Culvert, and Structure Excavation, Special spec 553.010001 Coffer Dam	The Design-Builder shall replace the existing culvert with an open bottom culvert of equal length. At minimum, the culvert must have a width at bankfull (1.25 x Bankfull width) and would be embedded at least 20 percent at the inlet. Design-Builder shall size culverts using H&H modeling to ensure sufficient capacity for bankfull storm event and flood events. Current culvert sizes may be too small. Inlets and outlets need to be embedded in the embankment and protected with riprap to prevent scour - H&H modeling will help determine erosive forces and extent of protection needed. Any area disturbed during construction shall be stabilized after.
Floodplain Restoration associated with removal of existing ramp, ramp embankment, and culverts N-14 and N-15	Restore 2.0 acres of floodplain associated with a tributary to Mud Creek associated with Culverts N-14 and N-15)	Section 610 - Ground Vegetation - Preparation, Establishment and Management (All subsections except 1.02, 1.03, 1.12, 1.13, 2.03, 2.05, 2.12, and 2.13); Section 611 - Planting, Transplanting And Post Planting Care; Section 713 Landscape Development Materials	The Design-Builder shall develop a Restoration Plan for wetland, channel, and floodplain areas that would be temporarily disturbed during construction and/or for the channel and floodplain areas that have been identified for restoration. One section of the Restoration Plan shall include the restoration of the floodplain. At minimum, 2.0 acres of floodplain would be restored. The Design-Builder shall identify a reference floodplain and justification for its use and present it to NYSDEC for review and approval. One of the goals and objectives will be to grade the land to fully reconnect the adjacent wetland. The Restoration Plan shall establish goals and objectives as part of the Restoration Plan for review and approval by NYSDEC. At minimum, the entire restoration area shall be seeded at a rate specified by 610-3.04. Plugs and vines and groundcovers shall be planted at a rate of 1 plant per 4 sq. feet. Trees and shrubs at a rate of no less than 350 bare root plants per acre. At minimum, herbaceous plugs shall be spaced no more than 18" apart. The Design-Builder shall develop a Monitoring and Adaptive Management Plan as part of the development of the Restoration Plan. The Design-Builder shall follow all permit conditions outlined in the NYSDEC/USACE permits, including the Performance Standards established as part of the Monitoring and Adaptive Management Plan. At minimum, the Performance Standards shall stipulate that plant survival shall not be less than 85% after the five-year monitoring period. Invasive species (specifically Phragmites australis) shall not exceed 5% at the end of the five-year monitoring period.
Culvert N-22	Remove culvert and restore 250 feet of Mud Creek and associated wetland	Section 610 - Ground Vegetation - Preparation, Establishment and Management (All subsections except 1.02, 1.03, 1.12, 1.13, 2.03, 2.05, 2.12, and 2.13); Section 611 - Planting, Transplanting And Post Planting Care; Section 713 Landscape Development Materials; Special spec for fine channel grading (from Gay's Point project)	The Design-Builder shall develop a Restoration Plan for wetland, channel, and floodplain areas that would be temporarily disturbed during construction and/or for the channel and floodplain areas that have been identified for restoration. One section of the Restoration Plan will include the channel and riparian buffer restoration of Mud Creek. Mud Creek channel restoration will mimic an upstream portion of Mud Creek. The Design-Builder shall select a reference condition and justification for its use as part of its development of the Restoration Plan and the Restoration Plans goals and objectives. Only native species, including native aquatic plants, shall be used in the restoration plan. The Design-Builder shall submit the restoration plan to NYSDEC for approval. The vegetated buffer shall have a minimum width of 50° where space is limited and shall follow the Three Zone Concept outlined in NYSDEC Riparian Buffers guidance (https://www.dec.ny.gov/chemical/106345.html). Where possible, the vegetated buffer shall be 100° wide to meet NYSDEC's riparian corridor guidance. The Design-Builder shall develop a Monitoring and Adaptive Management Plan as part of the development of the Restoration Plan. The Design-Builder shall follow all permit conditions outlined in the NYSDEC/USACE permits, including the Performance Standards established as part of the restoration monitoring plan. At minimum, the Performance Standards shall stipulate that plant survival shall not be lower than 85% after the five year monitoring period and shall not be lower than 85% for three or more consecutive years within the five year period. Invasive species (specifically Phragmites australis) shall not exceed 5% at the end of the five year monitoring period.

Floodplain restoration	Restore 1.6 acres of floodplain adjacent to mainstem	Section 610 - Ground Vegetation - Preparation, Establishment and Management	The Design-Builder shall develop a Restoration Plan for wetland, channel, and floodplain areas that would be
associated with removal of	of Mud Creek	(All subsections except 1.02, 1.03, 1.12, 1.13, 2.03, 2.05, 2.12, and 2.13); Section	temporarily disturbed during construction and/or for the channel and floodplain areas that have been identified for
Culverts N-21 and N-22 and		611 - Planting, Transplanting And Post Planting Care; Section 713 Landscape	restoration. One section of the Restoration Plan shall include the restoration of the floodplain. At minimum, 1.6 acres of
associated existing highway		Development Materials	floodplain would be restored. The Design-Builder shall identify a reference floodplain and present the reference
embankments			floodplain to NYSDEC for review and approval. One of the goals and objectives will to grade the land to fully reconnect
			the adjacent wetland. The Restoration Plan shall establish goals and objectives as part of the Restoration Plan for
			review and approval by NYSDEC. At minimum, the entire restoration area shall be seeded at a rate specified by 610-
			3.04. Plugs and vines and groundcovers shall be planted at a rate of 1 plant per 4 sq. feet. Trees and shrubs at a rate of
			no less than 350 bare root plants per acre. At minimum, herbaceous plugs shall be spaced no more than 18" apart. The
			Design-Builder shall develop a Monitoring and Adaptive Management Plan as part of the development of the
			Restoration Plan. The Design-Builder shall follow all permit conditions outlined in the NYSDEC/USACE permits, including
			the Performance Standards established as part of the Monitoring and Adaptive Management Plan. At minimum, the
			Performance Standards shall stipulate that plant survival shall not be lower than 85% after the five year monitoring
			period and shall not be lower than 85% for three or more consecutive years within the five year period. Invasive species
			(specifically Phragmites australis) shall not exceed 5% at the end of the five year monitoring period.
1			

Hazardous Was	te Contaminated	Materials A	Additional	Information
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95 Perry Street Suite 300

120 East Washington Street Suite 414 Syracuse, NY 13202

325 Gold Street Suite 701 Brooklyn, NY 11201



Memorandum

To: File

From: Justin Kellogg, M.S., QEP, Senior Environmental Engineer

Date: May 12, 2022

Subject: I-81 VIADUCT PROJECT - PHASE 1, CONTRACT 1

PIN 3501.90. Contract D900054

Hazardous Waste/Contaminated Materials Additional Information for Contract 1 RFP

Watts Project Number 13092

The purpose of this Memorandum is to identify additional information that would assist in the bidding process for the I-81 Viaduct Project - Phase 1, Contract 1 Request for Proposal (RFP).

Hazardous waste/contaminated materials assessments have identified those properties where either contaminated soils and groundwater or underground storage tanks primarily used for petroleum sales are suspected to be present. Information describing the specific sites of concern is found in the Hazardous Waste/Contaminated Materials Screening Assessment Report dated February 2020 and the stand-alone Phase I Environmental Site Assessment for Proposed Noise Walls 16 A/B Memorandum dated May 17, 2021. The aforementioned documents were prepared for a larger project footprint than the Contract 1 project limits. This Memorandum identifies the sites of potential environmental concern that are found within or adjacent to the Contract 1 project limits. Please refer to the abovementioned documents for additional information on the sites of potential environmental concern.

The 18 sites in the table below are in the vicinity of the Design-Build Contract 1 project corridor and were identified as potentially contaminated; however, only one site (3.2.5, CSX: DeWitt Railroad Yard - shown in bold below) is considered to have a high probability of contamination being present.

The 17 other sites in the table below are considered to have a low probability of contamination and are called out as an advisory that the Design-Builder should be on the lookout and aware of the potential for contamination in the vicinity of these sites.

Site ID #	Property Name and Address	Current or Former Use	Potential Environmental Concerns	Notes
3.1.1	I-81: Sutton Dr - I-481 Interchange & I- 481: I-81 Interchange - Northern Blvd	Roadway Corridor	Petroleum Contamination	Roadway corridor, spills are too scattered to identify them specifically.

Watts Architects &Engineers

I-81 VIADUCT PROJECT - PHASE 1, CONTRACT 1 PIN 3501.90, Contract D900054 Hazardous Waste/Contaminated Materials Additional Information for Contract 1 RFP Watts Project Number 13092

Site ID	Property Name and Address	Current or Former Use	Potential Environmental Concerns	Notes
3.1.2	Burdick Auto Dealer: 5947 Circle Dr	Automobile Related	Chemical/Solvent Contamination, Petroleum Contamination, Abandoned USTs	Noise barrier installation disturbance is within the ROW and close to highway. Contamination, if present, is likely off the ROW.
3.1.3	Burdick Auto Dealer: 5857-5927 Circle Dr	Automobile Related, USTs	Petroleum Contamination, USTs	Soil disturbance is within the highway ROW and likely tank/spill sites are far from the ROW.
3.1.4	National Grid: 7496 Round Pond Rd	Natural Gas Fueling Station	Chemical/Solvent Contamination, Petroleum Contamination, Abandoned USTs	Disturbed area is within the ROW. Past spills were off of the highway ROW, small and mostly cleaned/closed.
3.1.5	Swift Transportation: 7470 Round Pond Rd	Automobile Related, USTs	Chemical/Solvent Contamination, Petroleum Contamination, Abandoned USTs	Soil disturbance is within the highway ROW and likely tank/spill sites are far from the ROW.
3.1.6	Monroe Tractor & Implement: 7300 Eastman Rd	Automobile Related	Petroleum Contamination	Soil disturbance is within the highway ROW and likely spill sites are far from the ROW.
3.1.7	Lan-Co Companies: 7330 Eastman Rd	Solid Waste Landfill	Chemical/Solvent Contamination, Petroleum Contamination, Abandoned USTs	Soil disturbance is within the highway ROW and likely spill sites are far from the ROW.
3.2.1	I-481: I-90 - Route 592 Interchange	Roadway Corridor	Chemical/Solvent Contamination, Petroleum Contamination	Roadway corridor, spills are too scattered to identify them specifically.
3.2.2	Inficon Inc: 2 Technology Pl	Manufacturing Facility and USTs	Chemical/Solvent Contamination, Petroleum Contamination, Abandoned USTs	Soil disturbance is within the highway ROW and likely tank/spill sites are far from the ROW.
3.2.3	Joy Process Mechanical 6747 Benedict Rd	Manufacturing Facility	Chemical/Solvent Contamination	Edge of disturbance area, but no ROW takes and started in 1986 (farmed prior) and no tanks.
3.2.4	Ultra Dairy: 6750 Benedict Rd	Manufacturing Facility and USTs	Chemical/Solvent Contamination, Petroleum Contamination, Abandoned USTs	Edge of disturbance area, but no ROW takes and tanks are ASTs, few, and somewhat recent.

Watts

Watts Architects &Engineers

I-81 VIADUCT PROJECT - PHASE 1, CONTRACT 1
PIN 3501.90, Contract D900054
Hazardous Waste/Contaminated Materials Additional Information for Contract 1 RFP
Watts Project Number 13092

Site ID	Property Name and Address	Current or Former Use	Potential Environmental Concerns	Notes
3.2.5	CSX: DeWitt Railroad Yard	Railroad	Chemical/Solvent Contamination	Bridge will be renovated, recommend investigative soil borings near piers and abutment excavations (to depth of excavation). Contaminated soil assumed to be encountered.
3.2.6	Penske Truck Rental: 6755-6773 Manlius Center Rd	Automobile Related, USTs	Petroleum Contamination, Abandoned USTs	Edge of disturbance area, but tanks were likely near the building, and I-481 is elevated (for the bridge crossings) in comparison to this site.
3.2.7	84 Lumber: 6801 Manlius Center Rd	Lumber Yard and USTs	Chemical/Solvent Contamination, Petroleum Contamination, Abandoned USTs	Edge of disturbance area, but no ROW takes, there is a substantial drainage ditch between the property and roadway, and I-481 is quite elevated (for the bridge crossings) in comparison to this site.
3.2.8	Allied Spring & Services Inc: 6800 Manlius Center Rd	Automobile Related, USTs	Chemical/Solvent Contamination, Petroleum Contamination	No ROW takes and construction not adjacent.
3.2.9	B&C Self- Storage: 5991 Drott Dr	Automobile Related, USTs	Petroleum Contamination, Abandoned USTs	Construction is within ROW and not adjacent to this site. Contamination, if present, is likely off the ROW.
А	Residential Property 434 Garden Center Drive	Automobile Related	Petroleum Contamination, Abandoned USTs	Construction of noise barrier is on the embankment above grade from house. Contamination, if present, is likely off the ROW.
В	Mattydale Shopping Plaza 2803 Brewerton Rd	Automobile Related	Petroleum Contamination, Abandoned USTs	Construction of noise barrier on embankment above grade from and somewhat far from the shopping plaza. Contamination, if present, is likely off the ROW.

Notes:

- 1) Site ID #s 3.1.1 through 3.2.9 in the table above refer to the sites identified within the Hazardous Waste/Contaminated Materials Screening Assessment Report dated February 2020.
- 2) Site ID #s A and B in the table above refer to the sites identified within the Phase I Environmental Site Assessment for Proposed Noise Walls 16 A/B Memorandum dated May 17, 2021.
- 3) Bold in the table above highlights the CSX: Dewitt Railroad Yard where it is assumed that contaminated soil will be encountered.

Non-Standard Feature Justif	cations and D	Design (Criteria	Tables
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Non-Standard and Non-Conforming Features Recommended to be Retained

New York State Department of Transportation

Non-Standard Features to be Retained

The Non-Standard Features recommended to be retained under PIN 3501.90 are listed in **Table 1**, followed by the Non-Standard Feature Justification form.

Table 1 Non-Standard Features Recommended to be Retained

Location	Design Element	Design Criteria	Proposed Design	NSF Justification Form
Southbound I-81 (at North Interchange)	HSSD	730 ft.	542/703 ft.	Fig 1
Southbound I-81 at existing I-481 Interchange 4	Horizontal Curve	1,815 ft.	1,235 ft.	Fig 2



Exhibit 2-15

Nonstandard Feature Justification Rev. 04/24/17 PIN: 3501.90 Route No. and Name: I-81 southbound at North Interchange National Network/Qualifying Highway Access Highway Project Type: Reconstruction Functional Class: Urban Principal Arterial - Interstate Design Classification (AASHTO Class): Interstate - Urban ADT: 13,800 % Trucks: 12.7% Terrain: Rolling 1. Description of Nonstandard Feature Type of Feature: Stopping Sight Distance (Horizontal) Location: STA H8 153+00 TO STA H8 166+50 (SeeAttached Figure) Latitude and Longitude (Linear Feature) FROM Lat: 43.146512 Long: -76.109914 TO Lat: 43.140500 Long: -76.103513 Latitude and Longitude (Point Feature) Lat: Long: Standard Value: 730 ft Design Speed: 70 mph N/A - New Construction Existing Value: N/A New Construction Recommended Speed - Existing: Recommended Speed - Proposed: 55 mph Proposed Value: 542 ft (Left Lane) 703 ft (65 mph) (See note 1) 2. Accident Analysis Current Accident Rate¹: N/A acc/mvm acc/mev Statewide Accident Rate: 1.08 acc/mvm acc/mev O No From N/A to N/A Is the Nonstandard Feature a contributing factor? Yes Anticipated accident rates, severity, and costs: N/A - New Construction 3. Cost Estimates Cost to fully meet standards: \$8.7 Million (see note 2) Cost(s) for incremental improvements: \$4.5 Million (see note 3) 4. Mitigation e.g., increased superelevation and speed change lane length for a non-standard ramp radius The left side shoulder will be constructed using a width of 12', instead of the minimum 4', on the curve/bridge to maximize sight distance around the bridge barrier. The additional shoulder width also serves as extra space for any evasive maneuvering around obstructions in the left lane. Highway guiderail to be box beam or cable to avoid sight line restrictions other than at bridge. R8-7 signs (Emergency Stopping Only) will be used on the bridge to discourage any voluntary stopping on the bridge that may create a hazard. 5. Compatibility with Adjacent Segments and Future Plans Proposed configuration is compatible with adjacent segments. There are no future plans to modify adjacent segments 6. Other Factors e.g., social, economic, and environmental See note 4 on Nonstandard Feature Justification attachment.

7. Proposed Treatment (i.e., recommendation)

Provide non-standard stopping sight distance with a 12' inside (left) shoulder. Provide highway guiderail that will not cause sight line restrictions other than at the bridge.

Use accidents per million vehicle miles (acc/mvm) for linear highway segments; use accidents per million entering vehicles (acc/meh) for intersections.

Nonstandard Feature Justification

Southbound I-81 (at North Interchange) Refer to Fig.1 (Attachment)

- 1. For the inside lane, the typical 4-foot shoulder width would provide a HSSD of 403 feet. Implementation of the incremental improvement, (widening shoulder to 12 feet), would provide an HSSD of 542 feet achieving approximately 74% of the design criteria. For the outside lane, the typical 4-foot shoulder width would provide a HSSD of 600. feet. Implementation of the incremental improvement (widening shoulder to 12 feet), would provide a HSSD of 703 feet achieving 96% of the design criteria.
- 2. The proposed design meets all other design standards except for HSSD at the bridge location (due to bridge barrier). One Alternative evaluation to meet HSSD criteria was to over widen the shoulder from a standard of 10 feet to 29 feet. An estimated \$8.7 million construction cost is based on further widening of bridge shoulder from 12 feet to 27 feet and tapering the approach and trailing shoulders. Another option to fully meet standards is described in note 4.
- 3. An incremental improvement of over widening the shoulder to 12 feet was also considered and adopted. An estimated \$ 4.5 million construction cost is based on widening the bridge shoulder from 4-foot standard to 12 feet and tapering the approach and trailing shoulder. See Attached Figure.
- 4. Trucks with a higher sightline, which compose of 12.7% of total traffic, will not be subjected to the restricted sight distance since they will be able to see over the barrier. Providing standard stopping sight distance would require a 27' inside (left) shoulder on the bridges using the proposed curve radius. This 27' wide shoulder may be mistaken for an additional travel lane and increase the risk of additional accidents. Flattening the radius to accommodate the required sight distance using a 12' shoulder would create severe impacts in the northeast quadrant of the interchange. This would require acquisition of 20+ acres of property and demolition of 30+ residences in the Brigadier Drive neighborhood and was determined infeasible.

Fig. 1

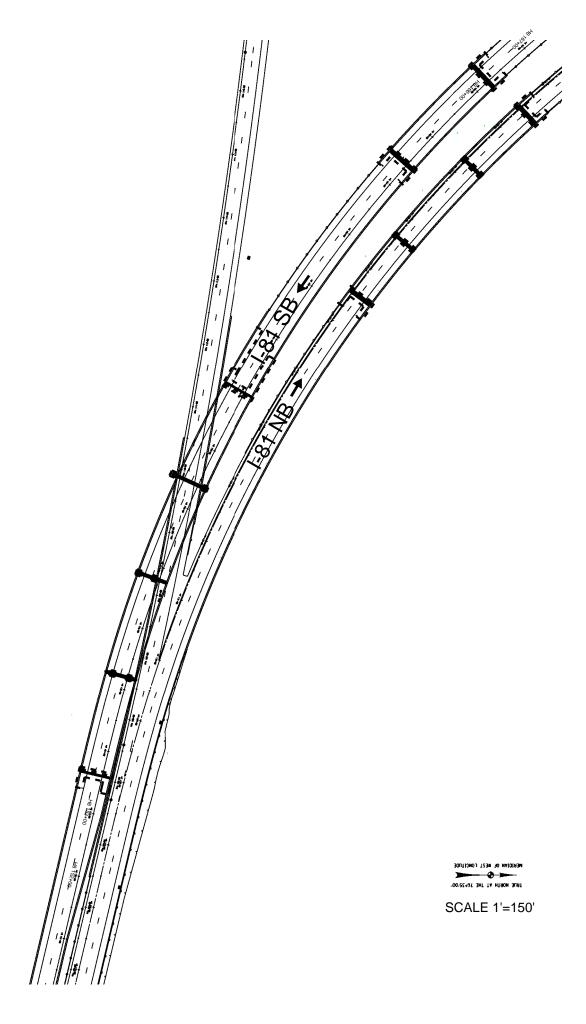
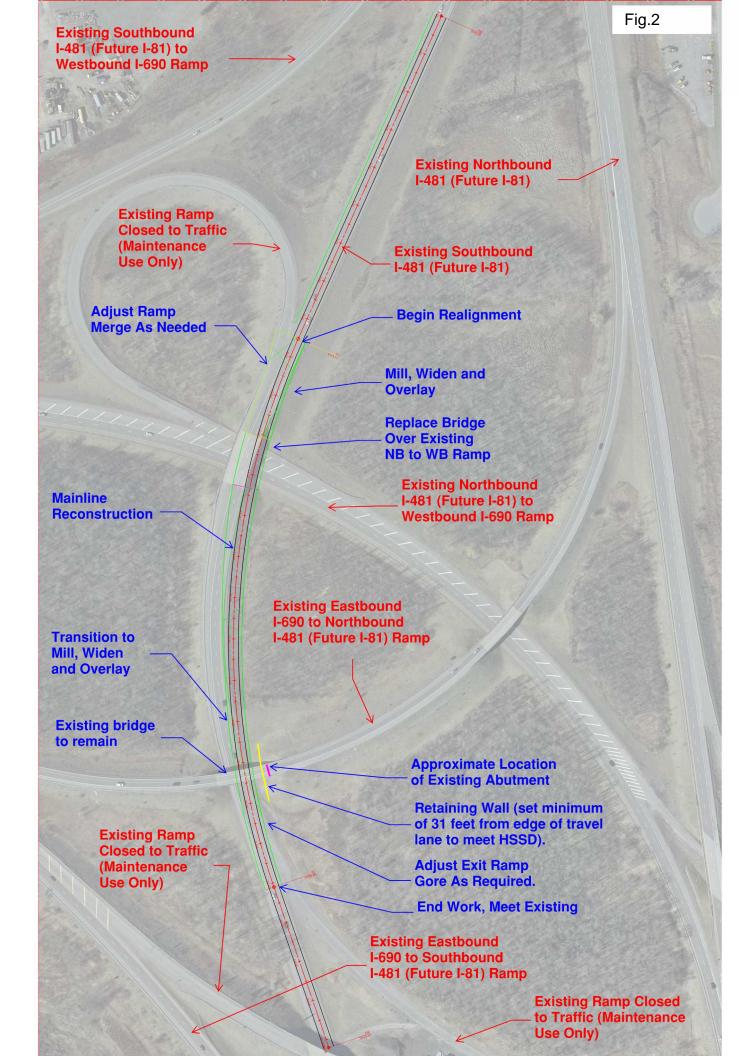




Exhibit 2-15 Nonstandard Feature Justification

					Rev. 04/24/17
PIN: 3501.90	Route No. and Name: Southbound I-481	(Future I-81) at Intercha	nge 4		
Project Type: Reconstruction		National Network/Qualifying Highway Access Highway			
Functional Class: Urban Principal Arterial	- Interstate	Design Classification (AASH	TO Class): Interstate	-Urban	
ADT: 23,104 (southbound only)	% Trucks: 6%	NHS	Terrain: Rolling		
1. Description of Nonstandard Feature					
Type of Feature: Horizontal Curve Radius	\$				
Location: RM 481I 33012159 TO RM 4	181I 33012063 (See Attached Figure)				
Latitude and Longitude (Linear Feature) FRO	M Lat: 43.053576 Long: -76	6.054176 то	Lat: 43.057175	Long: -76.05	53809
Latitude and Longitude (Point Feature) Lat:	Long:				
Standard Value: 1815 ft @ 8% superelev	/ation	Design Speed: 70 mph			
Existing Value: 1235 ft		Recommended Speed - Exis	sting: 55 mph		
Proposed Value: 1235 ft @ existing supe	relevation	Recommended Speed - Pro	pposed: 55 mph		
2. Accident Analysis					
Current Accident Rate ¹ : 1.26	acc/mvm acc/mev	Statewide Accident Rate:	1.14	cc/mvm acc/r	mev
From 7/1/2016 to 6	/30/2019	Is the Nonstandard Feature	a contributing factor?	Yes No	
1.There were a total of 10 crashes at t	this location for the 3-year period, of whi	ich 6 crashes were poter	itially related to the no	on-standard feature.	. See note 1
3. Cost Estimates					
Cost to fully meet standards: \$ 6.2 Million	n (see note 2)	Cost(s) for incremental imp	provements: N/A (see	note 3 on attachme	ent).
4. Mitigation					
e.g., increased superelevation and speed chang Curve warning signs will be placed in					
5. Compatibility with Adjacent Segments a	nd Future Plans				
No future plans for adjacent segments	s of this ramp.				
6. Other Factors					
	uire approximately 1,400 LF of mainline estimated safety benefit. See notes 2 and		s a retaining wall (see	attached figure). T	he cost of
7. Proposed Treatment (i.e., recommendation	ion)				
Propose retention of existing non-stan	ndard curve radii, add curve warning sigr	ns and continue NYSDO	T monitoring.		

¹ Use accidents per million vehicle miles (acc/mvm) for linear highway segments; use accidents per million entering vehicles (acc/meh) for intersections.



Nonstandard Feature Justification

Horizontal Curve – I-481 (Future I-81) at Existing I-481 Interchange 4
Refer to Fig.2
(Attachment)

- 1. The existing crash rate is slightly higher than the statewide average rate at this location. For the 3-year period, there were a total of 10 crashes, 6 of which are potentially related to the non-standard horizontal curve along southbound I-481. A cluster of crashes occurred on the horizontal curve in the approximate center of the existing I-481 Interchange 4. The majority of these crashes are fixed object crashes resulting from a loss of control in adverse weather conditions. A pavement friction evaluation was conducted in accordance with the Department's Comprehensive Pavement Design Manual. The measured FN(40) values were between 37.3 and 59.3, which are above 32 (the friction value utilized in the stopping sight distance criteria for wet pavements). With measured friction values higher than 32, it appears skid resistance is not contributing to the crash history at this location.
- 2. Modification of the horizontal curve to meet current design standards would require approximately 1,400 LF of mainline reconstruction as well as a retaining wall (see attached figure). The cost of the reconstruction would exceed the estimated safety benefit.
- 3. An incremental improvement was evaluated, which involved adjusting the superelevation to the maximum 8%, which would increase the allowable speed to approximately 60 mph vs the 70 mph Design Speed. However, the existing mainline passes under an existing ramp bridge with minimum vertical clearance, so it is not possible to adjust the superelevation without either replacing the existing bridge or introducing a non-standard vertical clearance. In addition, adjusting the superelevation would also affect the overpass bridge on the north end of the curve. The shim depth required to obtain an 8% superelevation would likely cause the load carrying capacity of the bridge to be exceeded, resulting in the need to replace or heavily modify a second bridge. Both of the potentially impacted existing bridges are in good condition with good remaining service life.

Non-Conforming Feature Table and Justification

The Non-Conforming Freeway Features recommended to be retained are listed in **Table 2**. A non-conforming feature is a design element that does not meet other recommended design parameters established by NYSDOT and AASHTO (such as control of access, ramp spacing, etc.), that are in addition to the ten controlling criteria as designated by FHWA. Refer to FDR/FEIS Appendix A-3 for more information regarding the justification for retention of these non-conforming features.

Table 2 Non-Conforming Freeway Features Recommended to be Retained (1)

Location	Design Element	Recommended Design Standard (2)	Proposed Design Standard	Justification
NB BL 81, between the on-ramp from SB NY-481 and off-ramp to NB NY-481	LOS (weave) (3)	LOS D or better	LOS E (2056 PM)	See below

Notes

- 1) When design advances, further refinements would attempt to further improve this feature.
- 2) Refer to Other Design Parameters in Tables 7-10
- 3) LOS = Level of Service.

Justification for retaining non-conforming feature:

The LOS E condition occurs in the horizon year (2056) and in the opening year (2026). The LOS is associated with the weaving segment between the SB NY-481 on ramp to BL 81 and the NB off-ramp to NB NY-481, where traffic merging into northbound BL 81 traffic is mixing with northbound BL 81 traffic exiting to northbound NY-481 (19) and would only apply to the PM peak hour. Travel speeds would not drop significantly below posted speeds. Potential mitigation options may include eliminating the northbound entrance ramp, reconstructing the northbound off-ramp as a fly over ramp, or other ramp configurations that may mitigate the weaving segment. It is anticipated that all reconfiguration options would increase ROW impacts and likely increase wetland impacts.

Design Criteria Tables

TABLE 1

	DESIGN CRIT	ERIA – NEW I-81 (FORME	ER I-481)			
PIN: Route No. & Name:		3501.90		NHS (Y/N):	Yes	
		Name: Re-designated I-81 (Former I-481)		Functional Classification:	Urban Principal Arterial – Other Freeway/Expressway	
Pre	oject Type:	Reconstruction		Design Classification:	Freeway/Expressway Rolling Qualifying Highway	
%	Trucks:	6%		Terrain:		
Αſ	OT (2050):	56,800		Truck Access/Qualifying:		
	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE	
1	Design Speed (Min.)	70 mph ⁽¹⁾	Posted 65 mph	70 mph	HDM § 2.7.1.1.A	
2	Travel Lane Width (Min.)	12 ft.	12 ft.	12 ft.	HDM § 2.7.1.1.B	
3	Shoulder Width (Min.) Right Left (2-lanes per direction) Left (3-lanes per direction)	10 ft. 4 ft. 10 ft.	2.5 ft.* (3) 2.5 ft.* (3) 5 ft. * (3)	2.5 ft.* (3,4) 2.5 ft.* (3,4) 5 ft.* (3,4,5)	HDM § 2.7.1.1.C Exhibit 2-2	
4	Grade (Max.)	4%	5.0%*	4%	HDM § 2.7.1.1.G Exhibit 2-2,	
5	Horizontal Curve Radius (Min. Radius)	1815 ft. @ 8%	1572 ft.*	1912 ft.	HDM § 2.7.1.1.D Exhibit 2-2	
6	Superelevation	8%	4.1% *	8%	HDM § 2.7.1.1.E	
7	Stopping Sight Distance (Min.)	730 ft.	389 ft.*	524 ft. * ⁽⁶⁾	HDM § 2.7.1.1.F Exhibit 2-2	
8	Vertical Clearance	16 ft. Min. ⁽⁷⁾ 16.5 ft. Desired	16 ft. (Min.)	16.5 ft. Min. (⁷)	HDM § 2.7.1.1.I / NYSDOT Brg. Man § 2.3.1, Table 2-2	
9	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 2.5% max	1.5% / 2.0%	1.5% min, 2.5% max	HDM § 2.7.1.1.H	
10	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	H20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2.5	

* Nonstandard feature

Notes:

- 1) The Regional Traffic Engineer has concurred that the use of a Design Speed of 70 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.
- 2) Posted 55 mph between southern project limit and Rock Cut Road interchange on existing I-481, then posted 65 mph between Rock Cut Road interchange to northern project limit.
- 3) All shoulders meet the design standard except for the existing left and right shoulders on both the existing NB and SB I-481 bridge over Route 5/92 (see Non- Standard Feature Justification Forms).
- 4) On inside of horizontal curves, the proposed shoulder width varies to 12 feet maximum to meet Horizontal Stopping Sight Distance criteria.
- There is no qualifying 3-lane section in the South Study Area or in the East Study Area between I-690 and I-90 (the 3-lane sections between I-690 and I-90 are due to auxiliary lanes which are less than 1-mile long). There are qualifying 3-lane segments in the East Study Area (between Route 5/92 and Kinne Road) and in the North Study Area, where 10-foot median side shoulders are provided in accordance with the design criteria.
- 6) Proposed Horizontal Stopping Sight Distance is non-standard along two curves in the south interchange area and one curve in the north interchange area (See Non-Standard Feature Justification Forms). All other locations meet design criteria of 730 feet minimum.
- New I-81 is the designated 16-ft route. The minimum vertical clearance for sign structures and pedestrian bridges shall be 1-ft greater.

TABLE 2

-	DESIGN CRITERIA – BL	81 and NY 481 AT NORTH	I INTERCHAN	GE		
PIN: Route No. & Name: Project Type:		3501.90		NHS (Y/N):	Yes	
		BL 81 and NY-481 at North ern Interchange		Functional Classification:	Urban Principal Arterial – Other Freeway/Expresswa	
		Reconstruction	1	Design Classification:	Freeway/Expressway	
%′	Trucks:	6%	1	Terrain:	Rolling Qualifying Highway	
AΓ	OT (2050):	56,800	1	Truck Access/Qualifying:		
	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE	
1	Design Speed (Min.)	70 mph ⁽¹⁾	Posted 65 mph	70 mph	HDM § 2.7.1.1.A	
2	Travel Lane Width (Min.)	12 ft.	12 ft.	12 ft.	HDM § 2.7.1.1.B	
3	Shoulder Width (Min.) Right Left (2-lanes per direction) Left (3-lanes per direction)	10 ft. 4 ft. 10 ft.	10 ft. 4 ft. 4 ft. *	10 ft. ⁽²⁾ 4 ft. ⁽²⁾ 10 ft. ⁽²⁾	HDM § 2.7.1.1.C Exhibit 2-2	
4	Grade (Max.)	4%	5.0%*	4%	HDM § 2.7.1.1.G Exhibit 2-2,	
5	Horizontal Curve Radius (Min. Radius)	1815 ft. @ 8%	1572 ft.*	2712 ft.	HDM § 2.7.1.1.D Exhibit 2-2	
5	Superelevation	8%	4.1% *	8%	HDM § 2.7.1.1.E	
7	Stopping Sight Distance (Min.)	730 ft.	> 730 ft.	> 730 ft.	HDM § 2.7.1.1.F Exhibit 2-2	
3	Vertical Clearance	16 ft. Min. ^(3, 4) 16.5 ft. Desired	16 ft. (Min.)	16.5 ft. Min. (3, 4)	HDM § 2.7.1.1.I / NYSDOT Brg. Mar § 2.3.1 Table 2-2	
)	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 2.5% max	1.5% / 2.0%	1.5% min, 2.5% max	HDM § 2.7.1.1.H	
0	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	H20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2.5	

^{*} Nonstandard feature

Notes:

- The Regional Traffic Engineer has concurred that the use of a Design Speed of 70 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.
- On inside of horizontal curves, the proposed shoulder width varies to 12 feet maximum to meet Horizontal Stopping Sight Distance criteria.
- 3) In addition to New I-81 being on the designated 16-ft clearance route, the section of BL 81, between I-90 and the northern limit (North Interchange) is also on the designated 16-ft clearance route.
- 4) The minimum vertical clearance for sign structures and pedestrian bridges shall be 1-ft greater.

TABLE 3

					TABLE 3
	DESIGN CRITER	IA FOR DIAGONAL RAMPS			
PIN	Ň:	3501.90		NHS (Y/N):	Yes
Route No. & Name:		Interstate/Freeway Diagonal Ramps (1)		Functional Classification:	Urban Principal Arterial – Interstate or Other Freeway
Pro	ject Type:	Reconstruction		Design Classification:	Ramp (Diagonal
	Trucks:	Varies		Terrain:	Rolling
AD	T (2050):	Varies		Truck Access/Qualifying:	Qualifying Highwa
]	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE
1	Design Speed (Min.)	30 mph (2)	30 mph	30 mph	HDM § 2.7.5.3.A
2	Travel Lane Width (Min.) ^(3, 4) Turn Lane	12 ft. (1 lane) R>1000 ft., Tangent 16 ft. (1 lane) R=200 ft-499 ft. 17 ft. (1 lane) R=150 ft-199 ft. 33 ft. (2 lane) R=150 ft-199 ft. 12 ft.	12 ft.	12 ft. (1 lane) R>1000 ft., Tangent 16 ft. (1 lane) R=200 ft-499 ft. 17 ft. (1 lane) R=150 ft-199 ft. 33 ft. (2 lane) R=150 ft-199 ft. 12 ft.	HDM § 2.7.5.3.B Exhibit 2.9.
3	Shoulder Width (Min.) Right Left 2 Lane Ramp	6 ft. (1 lane ramp) 4 ft. (1 lane ramp) Add 2 ft. for curb section	1ft & Varies*	6 ft. 4 ft. Add 2 ft. for curb section	HDM § 2.7.5.3.C Exhibit 2-10a
4	Grade (Max.)	7%	7%	7%	HDM § 2.7.5.3.G Exhibit 2-10
5	Horizontal Curve Radius (Min. Radius)	214 ft. @ 8%	57 ft. *	158 ft. * ⁽⁵⁾	HDM § 2.7.5.3.D Exhibit 2-10
6	Superelevation	8%	3.8% *	8%	HDM § 2.7.5.3.E
7	Stopping Sight Distance (Min.)	200 ft.	160 ft. & Varies*	135 ft. *	HDM § 2.7.5.3.F Exhibit 2-10
8	Vertical Clearance	14 ft. Min. ^(6,7) 14.5 ft. Desired	14 ft. Min.	14.5 ft. Min. (6, 7)	HDM § 2.7.5.3.I / NYSDOT Brg. Man. § 2.3.1 Table 2-2
9	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 2.5% max	1.5% / 2.0%	1.5% min, 2.5% max	HDM § 2.7.5.3.H
10	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	HS-20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2
11	Americans with Disabilities (ADA Compliance)	Comply with PROWAG and HDM Chapter 18 ⁽⁸⁾	At Ramp Terminal	Complies with PROWAG and HDM Chapter 18 (8)	HDM § 2.7.5.3.K

* Nonstandard feature

- 1) Table applies to all interstate or freeway diagonal ramps where the mainline design speed= 60 mph or less.
- 2) The Regional Traffic Engineer has concurred that the use of a Design Speed of 30 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.
- 3) Ramps to be designed with provision for passing a WB-67 stalled vehicle (Case IIC for one lane ramp or Case IIIC for two lane ramp).
- 4) Lane width based on deducting right and left shoulder widths from the Exhibit 2-9 Traveled Way Width, Case IIC, and applying the minimum Case I lane width. Per Exhibit 2-9, where the combined shoulder width is 4 ft. or wider, a 12-foot lane width may be used on tangents (radius greater than or equal to 1000 ft.).
- 5) Proposed Horizontal Curve Radius is non-standard along three ramp curves (See Non-Standard Feature Justification Forms. All other locations meet design criteria.
- 6) 16-ft clearance exemption. New I-81 is the designated 16-ft route.
- 7) The minimum vertical clearance for sign structures and pedestrian bridges shall be 1-ft greater.
- 8) At Ramp Terminal only.

TABLE 4

	DESIGN CRITERIA	FOR DIAGONAL RAMPS	3		
PIN	V:	3501.90		NHS (Y/N):	Yes
Rot	ite No. & Name:	me: Interstate Diagonal Ramps		Functional Classification:	Urban Principal Arterial – Interstate (2)
Pro	ject Type:	Reconstruction		Design Classification:	Ramp (Diagonal)
% 7	Trucks:	Varies		Terrain:	Rolling
ΑD	Т (2050):	Varies		Truck Access/Qualifying:	Qualifying Highway
	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE
1	Design Speed (Min.)	40 mph ⁽³⁾	40 mph	40 mph	HDM § 2.7.5.3.A
2	Travel Lane Width (Min.)	12 ft. (1 lane) R>1000 ft., Tangent (4)	12 ft.	12 ft. (1 lane) R>1000 ft., Tangent (4)	HDM § 2.7.5.3.B Exhibit 2.9
3	Shoulder Width (Min.) Right Left	6 ft. 4 ft.	1ft & Varies*	6 ft. 4 ft.	HDM § 2.7.5.3.C Exhibit 2-10a
4	Grade (Max.)	6%	6%	6%	HDM § 2.7.5.3.G Exhibit 2-10a
5	Horizontal Curve Radius (Min. Radius)	444 ft. @ 8%	> 444 ft.	444 ft. @ 8%	HDM § 2.7.5.3.D Exhibit 2-10a
6	Superelevation	8%	8% Max.	8%	HDM § 2.7.5.3.E
7	Stopping Sight Distance (Min.)	305 ft.	160 ft. & Varies*	305 ft.	HDM § 2.7.5.3.F Exhibit 2-10a
8	Vertical Clearance	16 ft. Min. (5,6) 16.5 ft. Desired	16 ft. Min.	16.5 ft. Min. (5, 6)	HDM § 2.7.5.3.I / NYSDOT Brg. Man. § 2.3.1 Table 2-2
9	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 2.5% max	1.5% / 2.0%	1.5% min, 2.5% max	HDM § 2.7.5.3.H
10	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	HS-20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2.5
11	Americans with Disabilities (ADA Compliance)	Comply with PROWAG and HDM Chapter 18 (7)	At Ramp Terminal	Complies with PROWAG and HDM Chapter 18 (7)	HDM § 2.7.5.3.K

* Nonstandard feature

- 1) Table applies to all diagonal ramps where the mainline design speed= 70 mph.
- 2) Ramps to be designed with provision for passing a WB-67 stalled vehicle (Case IIC).
- The Regional Traffic Engineer has concurred that the use of a Design Speed of 40 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.
- 4) Lane width based on deducting right and left shoulder widths from the Exhibit 2-9 Traveled Way Width, Case IIC, and applying the minimum Case I lane width. Per Exhibit 2-9, where the combined shoulder width is 4 ft. or wider, a 12-foot lane width may be used on tangents (radius greater than or equal to 1000 ft.).
- 5) New I-81 is the designated 16-ft route.
- 6) The minimum vertical clearance for sign structures and pedestrian bridges shall be 1-ft greater.
- 7) At Ramp Terminal only.

	DESIGN CRITERIA FOR SOUTH BAY ROAD						
PIN	·	3501.90		NHS (Y/N):	No		
Rou	te No. & Name:	ame: South Bay Road		Functional Classification:	Urban Minor Arterial		
Proj	ect Type:	Bridge Replacement		Design Classification:	Urban Arterial		
% T	rucks:	3%		Terrain:	Rolling		
AD'	Г (2050):	14,000		Truck Access/Qualifying:	Neither		
	DESIGN ELEMENT	STANDARD CRITERIA	EXISTING CONDITION	PROPOSED CONDITION	REFERENCE		
1	Design Speed (Min.)	50 mph (1)	Posted 45 mph	50 mph	HDM § 2.7.2.3.A		
2	Travel Lane Width	12 ft. min.	12 ft.	12 ft.	HDM § 2.7.2.3.B Exhibit 2-4		
3	Shoulder Width (Min.)	6 ft. Shoulder	4 ft.	6 ft. Shoulder	HDM § 2.7.2.3.C Exhibit 2-4		
4	Grade (Max.)	5.0%	2.36 %	2.36 % max	HDM § 2.7.2.3.G Exhibit 2-4		
5	Horizontal Curve Radius (Min. Radius)	595 ft.	>595 ft.	>595 ft.	HDM § 2.7.2.3.D Exhibit 2-4		
6	Superelevation	4.0% max.	N/A	4.0% max	HDM § 2.7.2.3.E Exhibit 2-1b		
7	Stopping Sight Distance (Min.)	387 ft.	>387 ft.	>387 ft.	HDM § 2.7.2.3.F Exhibit 2-4		
8	Vertical Clearance	16 ft. Min. (2) 16.5 ft. Desired	16.5 ft. Min.	16.5 ft. Min. (2)	HDM § 2.7.2.3.I NYSDOT Brg. Man. § 2.3.1		
9	Cross Slope (Pavement) (Min.) / (Max.)	1.5% min, 3.0% max	2%	1.5% min, 3.0% max	HDM § 2.7.2.3.H		
10	Design Loading Structural Capacity	NYSDOT Bridge Manual, Section 2.5	HS20	NYSDOT Bridge Manual, Section 2.5	NYSDOT Bridge Manual, Section 2.5		

* Nonstandard feature

^{1.} The Regional Traffic Engineer has concurred that the use of a Design Speed of 50 mph is consistent with the anticipated off-peak 85th percentile speed within the range of functional class speeds for the terrain and volume.

^{2.} The minimum vertical clearance for sign structures and pedestrian bridges shall be 1-ft greater.

Other Design Parameters

In addition to the 11 critical design elements described above, other design parameters established by NYSDOT and AASHTO that are typically used during the design of highway and bridge projects include the type of the design vehicle; the Level of Service (LOS) to be provided, which identifies the ease with which traffic can move along the roadways; the intensity of rainfall for design of storm drainage facilities; and the length of speed change lanes both during acceleration and deceleration. **Table 7** lists other highway design parameters used to develop the project design and **Table 8** lists the design vehicles used.

TABLE 7
Other Design Parameters: Highway or Feature

	Element	Criteria	Proposed Condition
1	Level of Service	D (min.) ¹	D (min.) ¹
1		C (desirable)	C (or better) desirable
	Storm Drainage System Design Storm		
	Interstate and Other Freeways	10 yr. ⁽²⁾	10 yr. ⁽²⁾
	Principal Arterials	10 yr. ⁽²⁾	10 yr. ⁽²⁾
	 Local Roads and Streets 	5 yr. ⁽³⁾	5 yr. ⁽³⁾
	Separated Storm Sewer Trunk Line	10 yr.	50 yr.
2	<u>Culvert Design Storm</u>		
	 Interstates, Arterials, Streets 	50 yr. ⁽⁴⁾	50 yr. ⁽⁴⁾
	Driveway Culverts	10 yr.	10 yr.
	Ditch Design Storm		
	 Interstate and Other Freeways 	25 yr. ⁽⁵⁾	25 yr. ⁽⁵⁾
	Principal Arterials	25 yr. ⁽⁵⁾	25 yr. ⁽⁵⁾
	Local Roads and Streets	10 yr. ⁽⁵⁾	10 yr. ⁽⁵⁾
3	Freeboard	2 ft. for the 50-year design flood	2 ft. for the 50-year design flood
	D. Civi		
	Ramp Criteria	Greater than or equal to minimum	Greater than or equal to minimum length in
	Deceleration Length	length in AASHTO Table 10-5.	AASHTO Table 10-5.
	Acceleration Length	Greater than or equal to minimum	Greater than or equal to minimum length in
4		length in AASHTO Table 10-3	AASHTO Table 10-3.
	Ramp Spacing (6)		
	 EN to EN or EX to EX 	Greater than or equal to 1000 ft.	Greater than or equal to 1000 ft.
	 EN to EX (System to Service) 	Greater than or equal to 2000 ft.	Greater than or equal to 2000 ft.
	■ EN to EX (Service to Service)	Greater than or equal to 1600 ft.	Greater than or equal to 1600 ft.
_	Bridge Roadway Width		
5	Lane and shoulder widths	Same as approach roadway	Same as approach roadway
	Haring at 1 Classica	carrie ac approved community	11
	Horizontal Clearance Interstate and other Freeways		
	o without barrier	15 ft.	15 ft.
	o with barrier	Shld. width or 4 ft. Min.	Shld. width or 4 ft. Min.
	Interstate and Freeway Ramps	15 ft.	15 ft.
6	without barrierwith barrier	Shld. width or 4 ft. Min.	Shld. width or 4 ft. Min.
	Urban Arterials (curbed), Urban		
	Collectors (curbed) and Local Urban		
	Streets (curbed)	1.5 ft., 3 ft. at intersections	
	o without barrier	0 ft.	1.5 ft., 3 ft. at intersections
	o with barrier	UII.	0 ft.

TABLE 7 (Cont.)

Other Design Parameters: Highway or Feature

	Element	Criteria	Proposed Condition
7	Rollover Between Lanes At Edge of Traveled Way	4 % Max. 8% Max.	4 % Max. 8% Max.
8	Control of Access Interstate and other Freeways Interstate and Freeway Ramps Urban Arterials (curbed), Urban Collectors (curbed) and Local Urban Streets (curbed)	Full Full Uncontrolled	Full Full Uncontrolled
9	Median Width Interstate and other Freeways	10 ft.	10 ft.

- 1) In heavily developed sections of metropolitan areas, conditions may necessitate a minimum LOS of D.
- 2) A 50-year frequency shall be used for design at the following locations where no overflow relief is available:
 - a. A sag vertical curves connecting negative and positive grades.
 - b. Other locations such as underpasses, depressed roadways, etc.
- 3) A 25-year frequency shall be used for design at the following locations where no overflow relief is available:
 - a. A sag vertical curves connecting negative and positive grades.
 - b. Other locations such as underpasses, depressed roadways, etc.
- 4) The check flow, used to assess the performance of the facility, should be the 100-year storm event.
- 5) Including lining material.
- 6) Refer to AASHTO Policy on Geometric Design of Highways & Streets, Figure 10-68. EN = Entrance Ramp, EX = Exit Ramp

TABLE 8
Other Design Parameters: Design Vehicle

Location	Design Vehicle	Vehicle
		Accommodated
I-81, including ramps	WB-67 ⁽¹⁾	WB-67 ⁽¹⁾
I-690, including ramps	WB-67 ⁽¹⁾	WB-67 ⁽¹⁾
I-481, including ramps	WB-67 (1)	WB-67 (1)
BL 81, including ramps	WB-67 (1)	WB-67 ⁽¹⁾

¹⁾ For ramps, HDM Exhibit 2-9, Case II, Condition C applies, except for longer vehicles (larger than WB-62) where minimum width can be determined using Case I widths.

Table 9 lists the primary design values for a paved shared-use path, and **Table 10** lists the primary design values for raised cycle tracks.

TABLE 9
Primary Design Values for Paved Shared-Use Path

Element	Standard Value	Source (1)	Proposed Value
Design Speed	20 mph	AASHTO	20 mph
Shared-Use Width	10 ft. min.	AASHTO	14 ft. typ.
Adjacent Graded Width	2 ft. min.	AASHTO	2 ft. min.
Adjacent Graded Slope	1:6 max. cross slope	AASHTO	1:6 max. cross slope
Maximum Grade	5% max. desired, 8% max. for short distances or match grade of adjacent roadway	AASHTO	8% max.
Cross Slope	2% max.	HDM Chapter 18	2% max.
Horizontal Curvature	74 ft. min.	AASHTO	74 ft. min.
Stopping Sight Distance (2)	195 ft. min.	AASHTO	195 ft. min.
Horizontal Sightline Offset (3)	56 ft. min.	AASHTO	56 ft. min.
Crest Vertical Curve Length (4)	425 ft. min.	AASHTO	425 ft. min.
Horizontal Clearance	2 ft. min.	AASHTO	2 ft. min.
Vertical Clearance	10 ft. min. ⁽⁵⁾	AASHTO	10 ft. min. ⁽⁵⁾
Bridge Path Width	12 ft. min. clear width	BM, Table 2-1	12 ft. min.
Separation from Roadways	5 ft. min. from face of curb or edge of shoulder	AASHTO	5 ft. min.

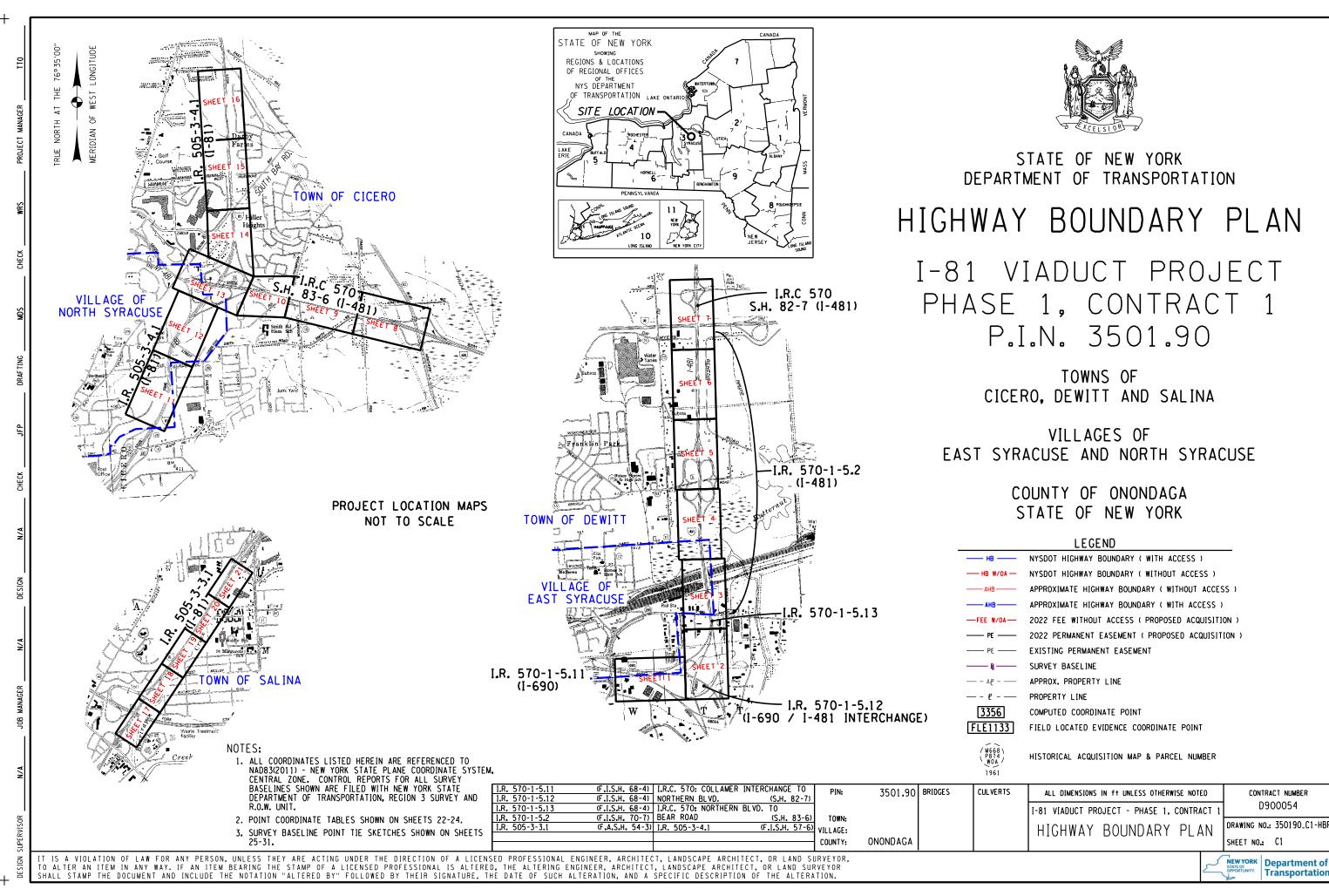
- 1) 2012 AASHTO Guide for the Development of Bicycle Facilities.
- 2) Based on 5% Grade.
- 3) Based on maximum curve radius.
- 4) Based on 10% grade differential.
- 5) Per NYSDOT Bridge Manual, 12 ft. is preferred and 13 ft. where emergency/maintenance access is required.

TABLE 10 Other Design Parameters: Railroad Facilities

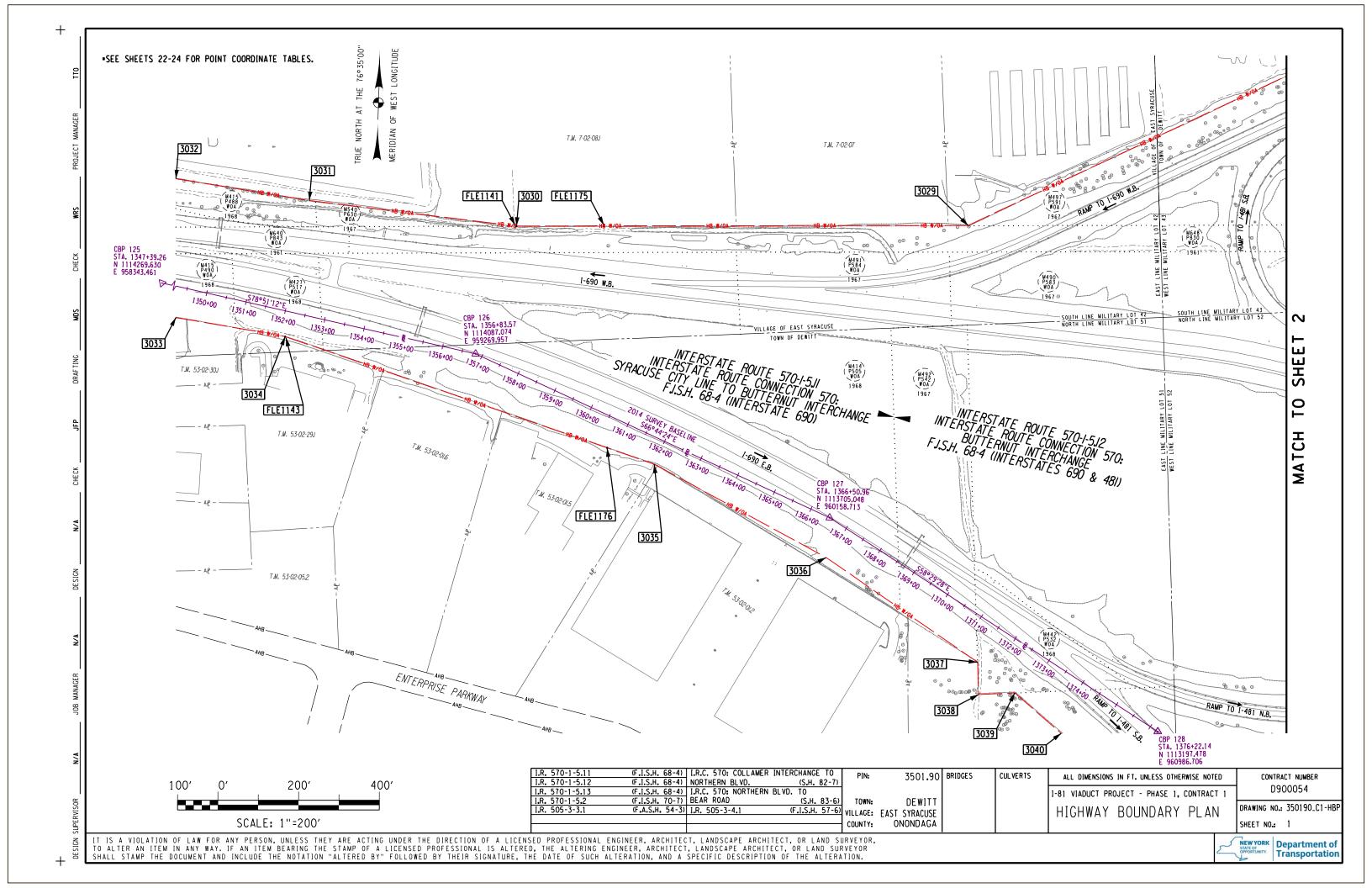
	Element	Criteria	Proposed Condition
CSX Railroad	Horizontal Clearance: With off-track roadway Without off-track roadway	28 ft. (20 ft. with crash wall) 20 ft. (12 ft. with crash wall)	28 ft. (20 ft. with crash wall) 20 ft. (12 ft. with crash wall)
	Vertical Clearance	22 ft. min from top of rail 23 ft. recommended	23 ft. min from top of rail

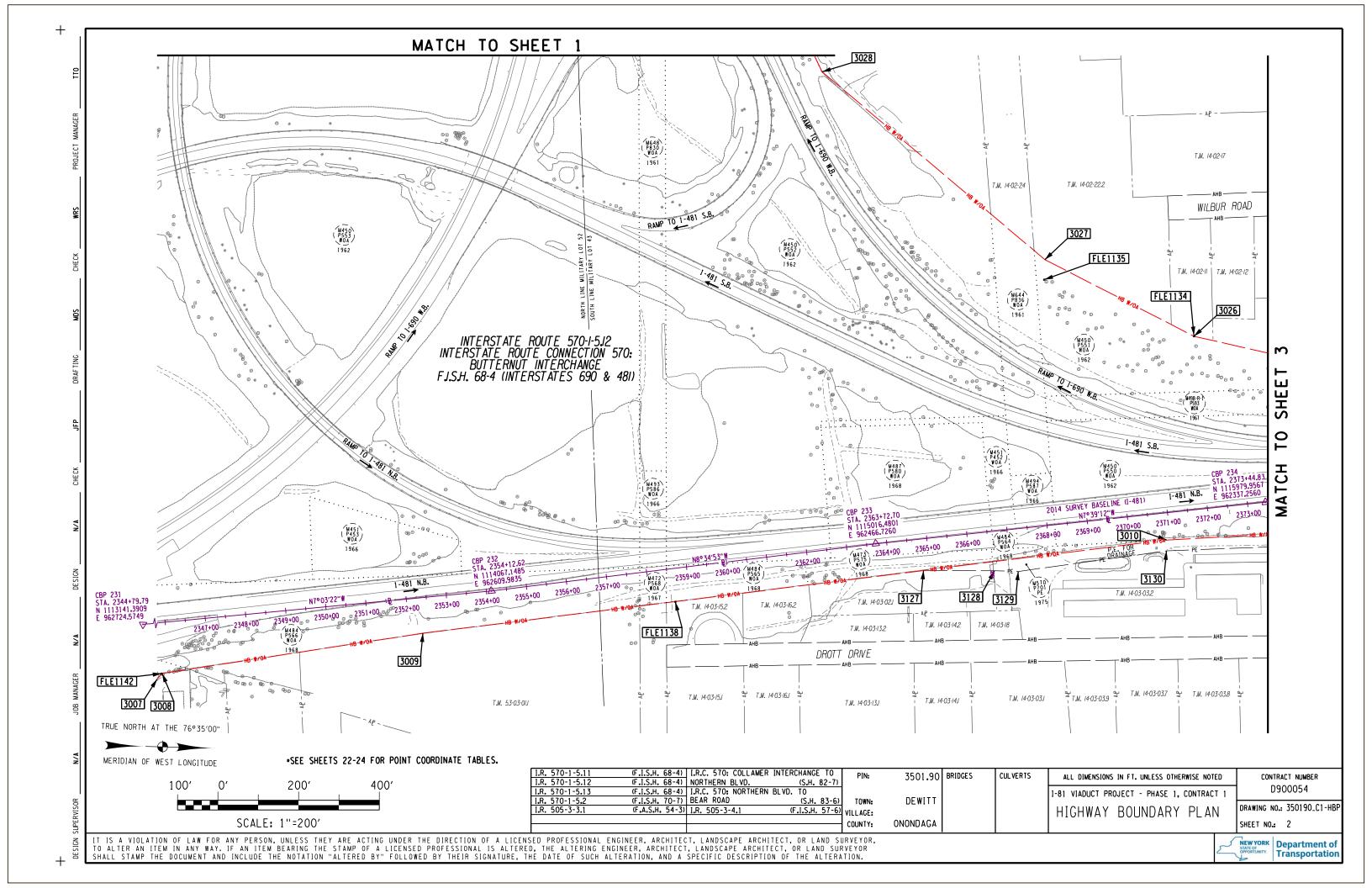
¹⁾ Based on 1-1/2-inch unbalanced superelevation (Eu) and 1-1/4 inch superelevation (Ea.).

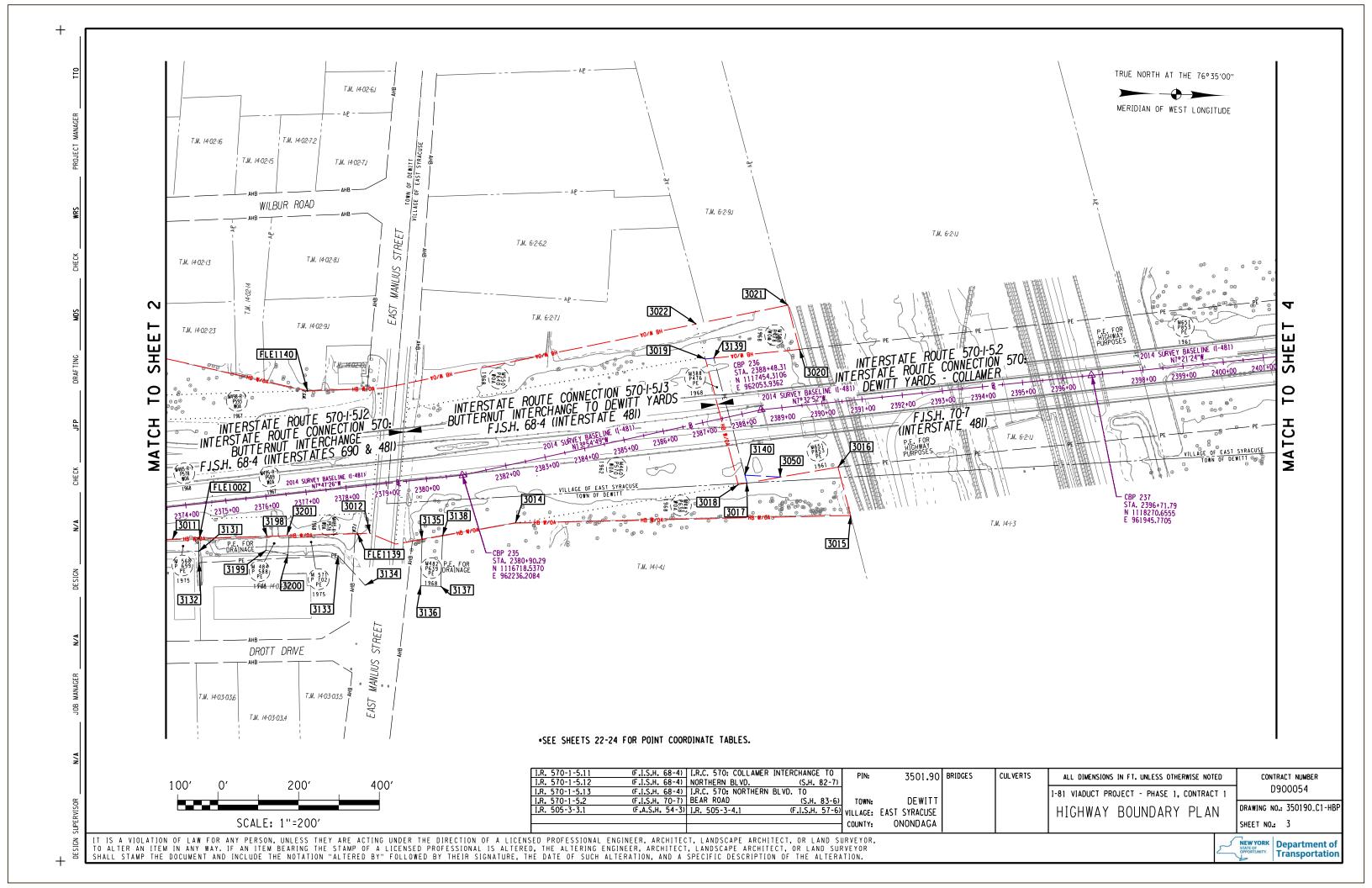
Highway Boundary Plans

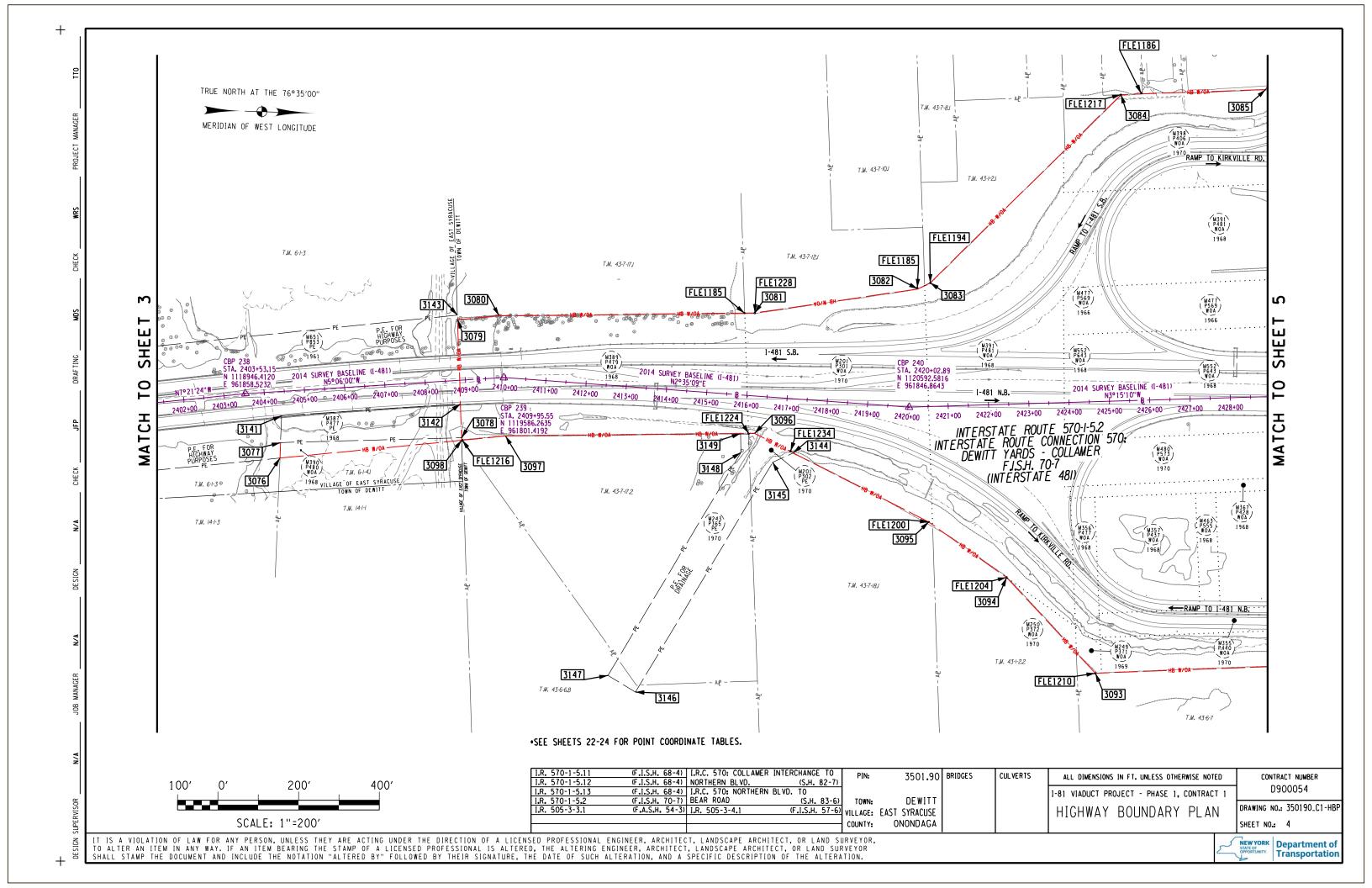


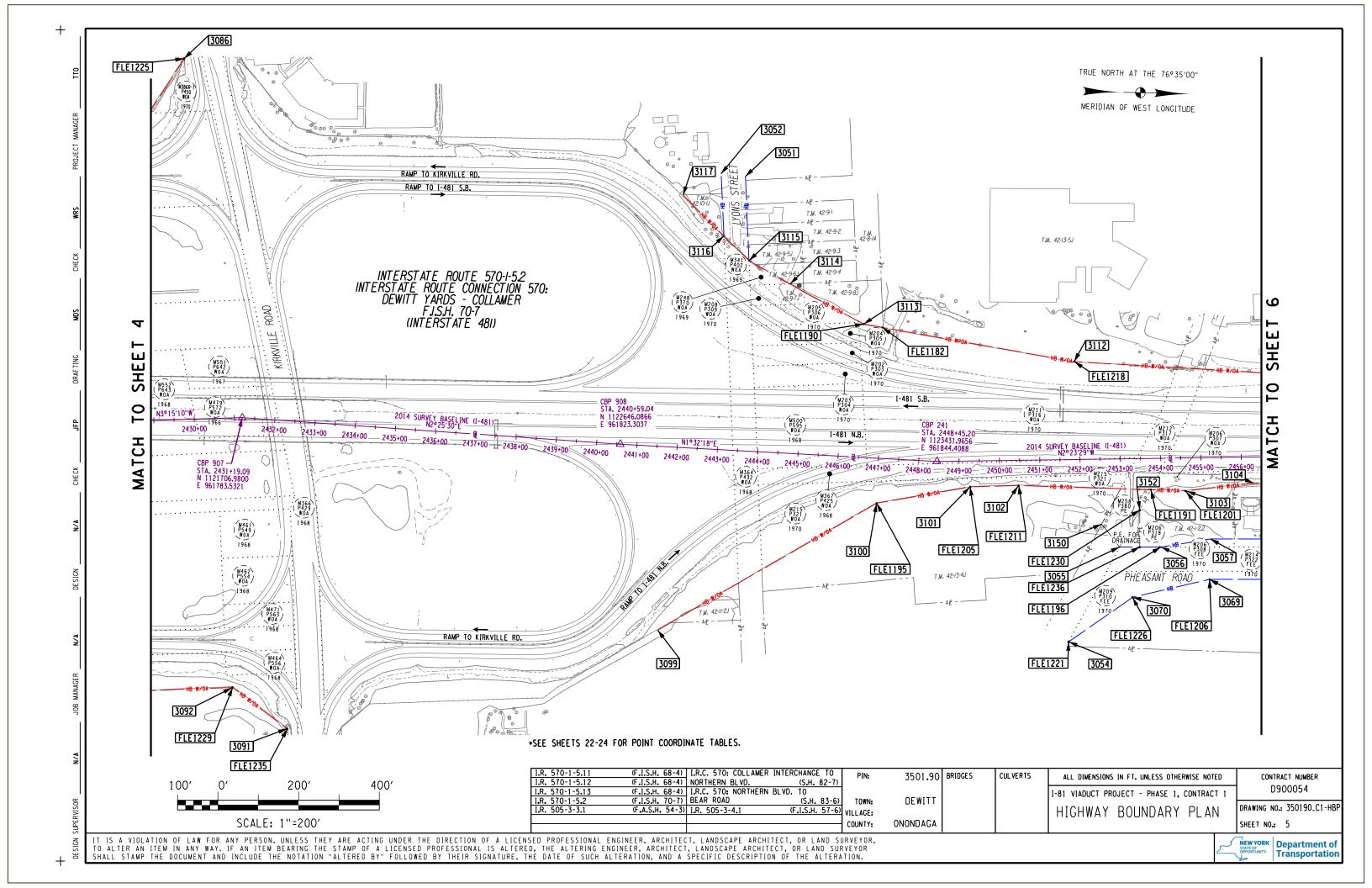
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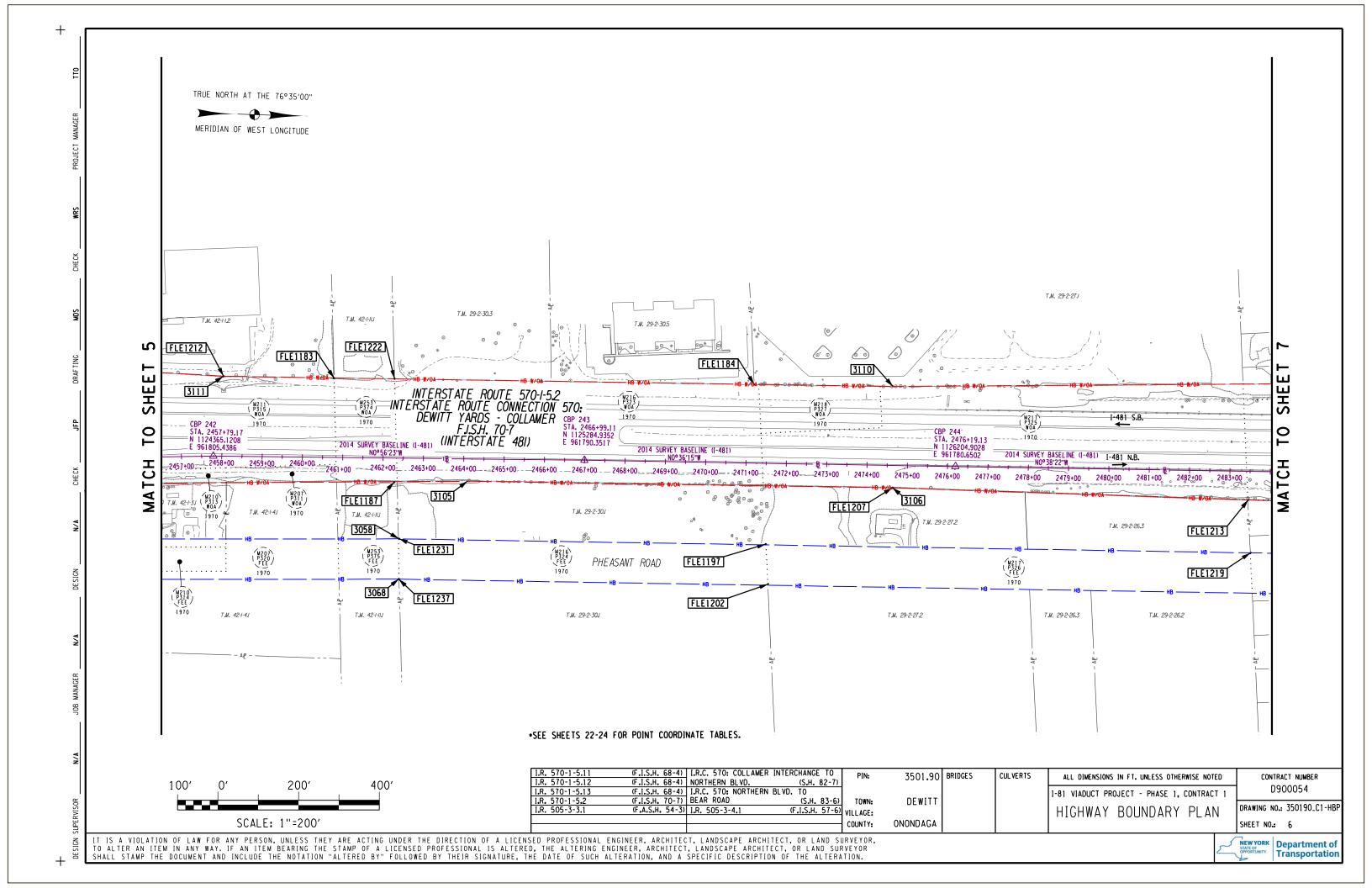


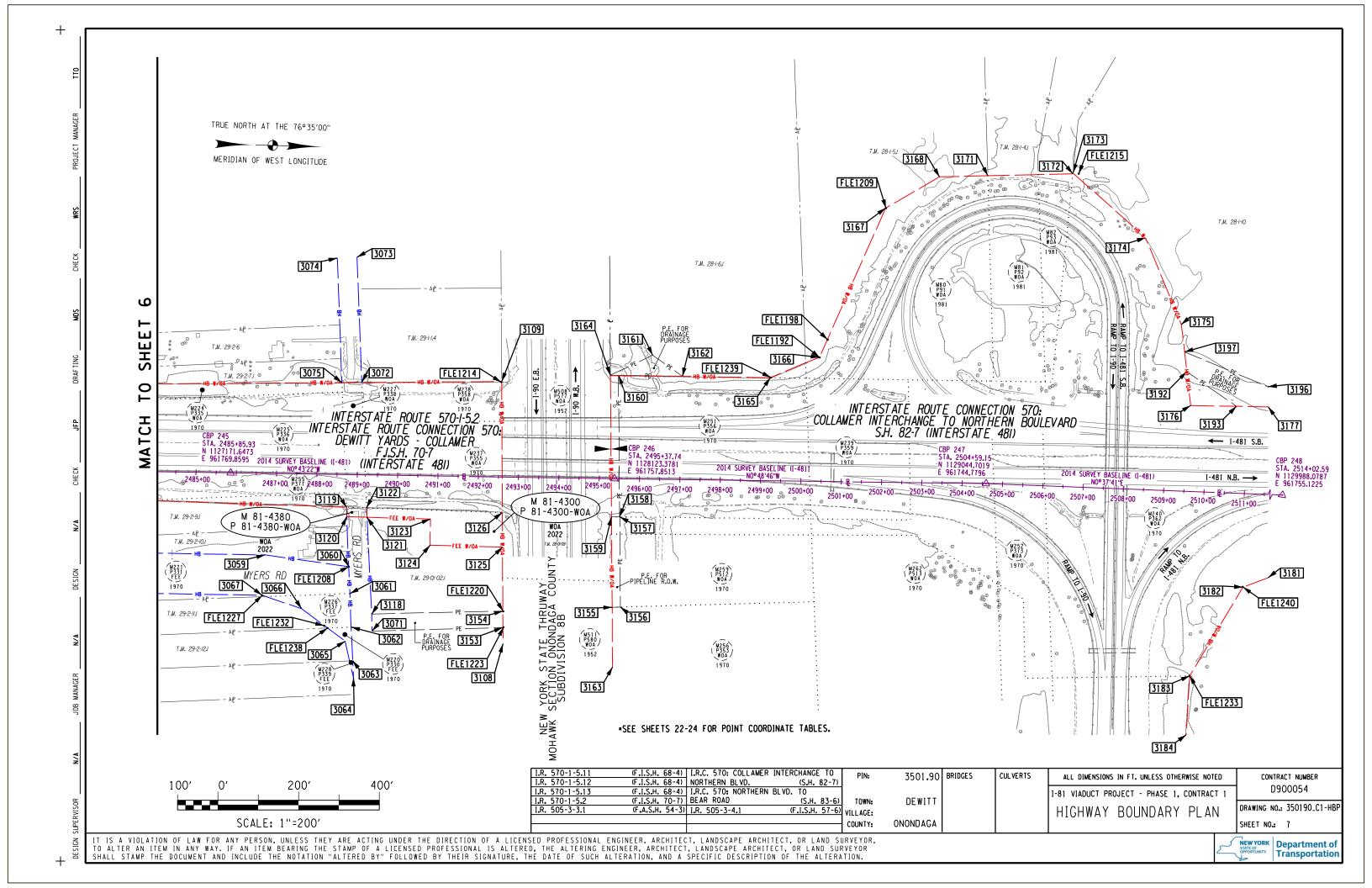


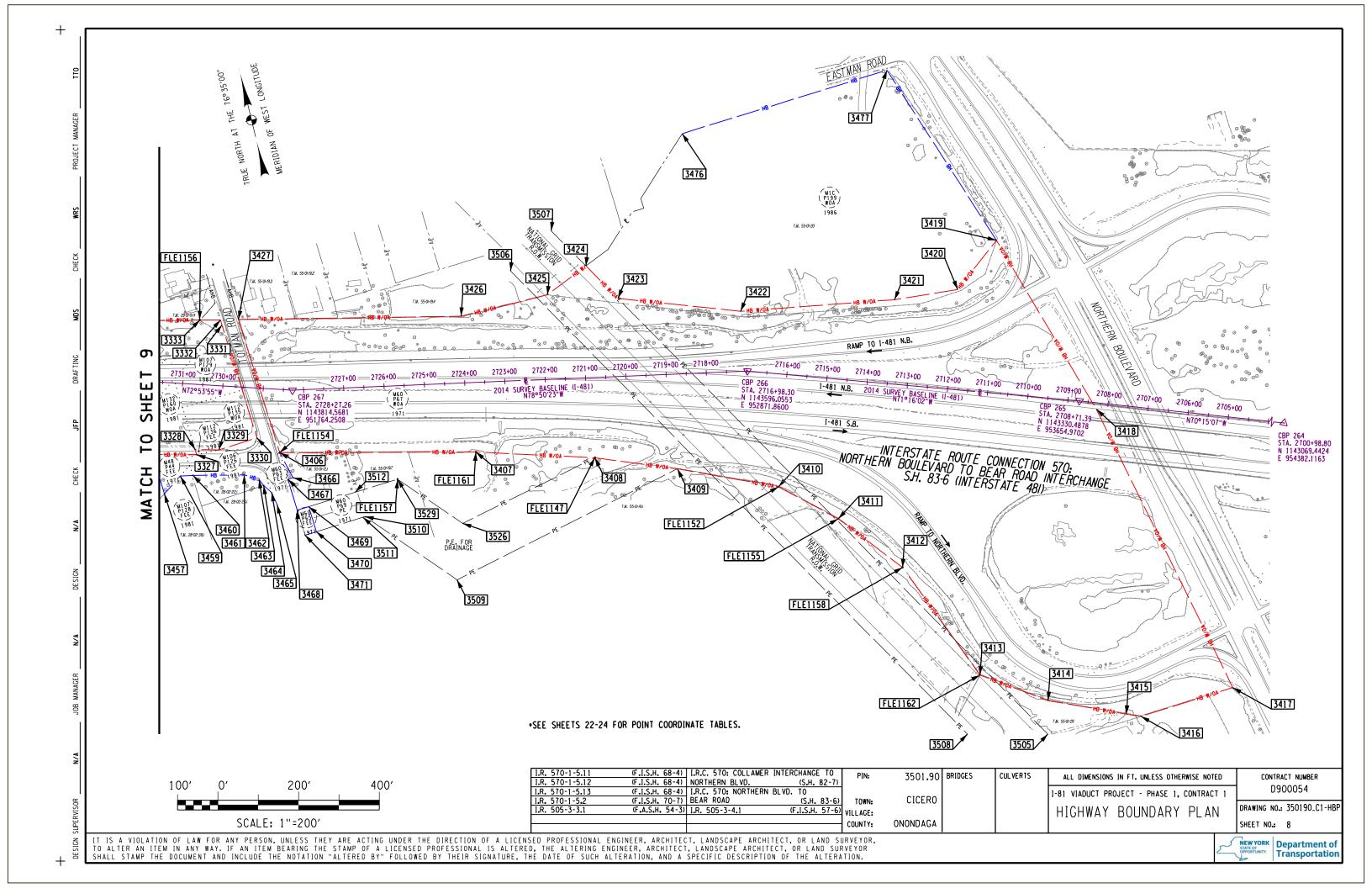


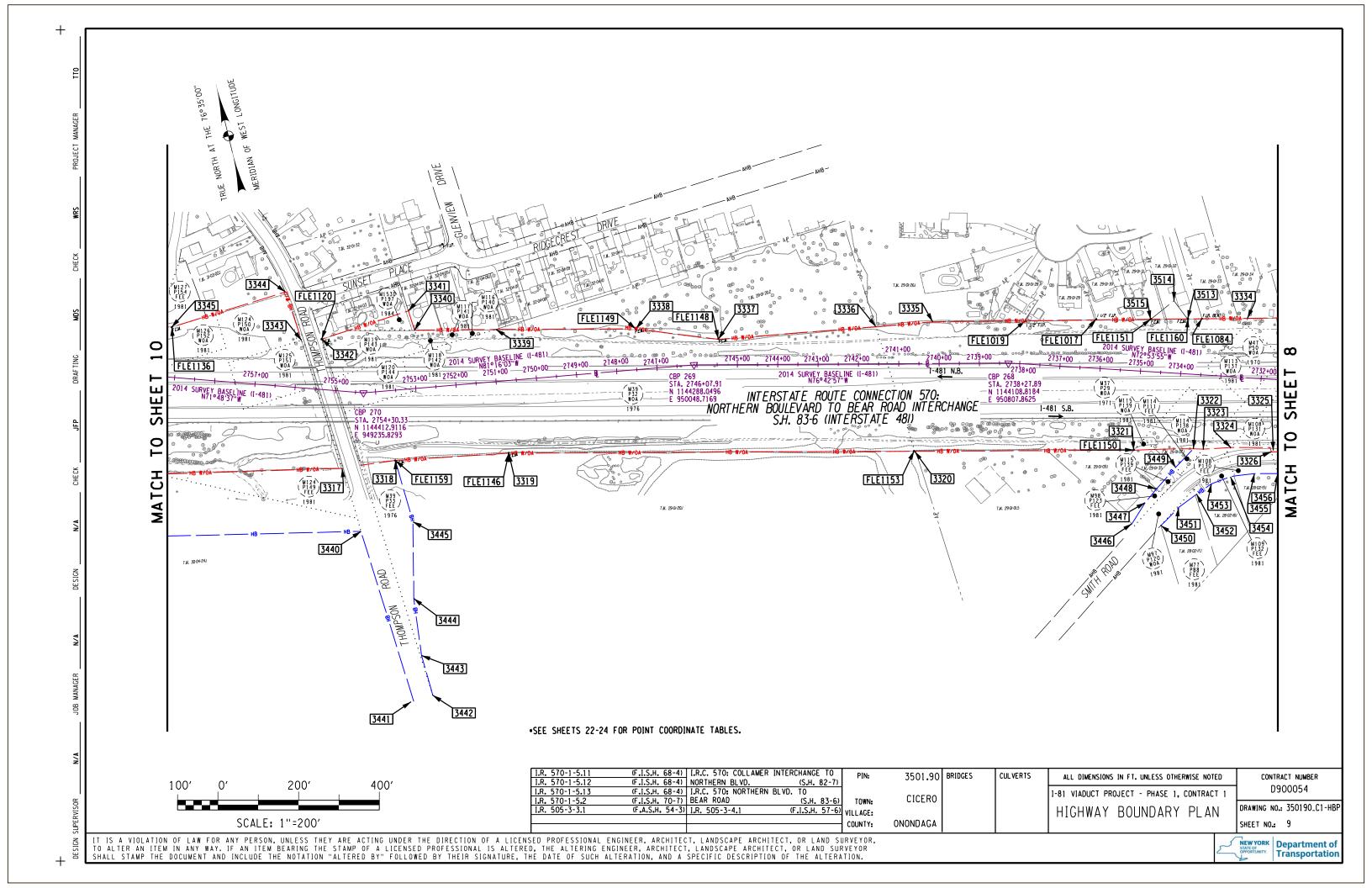


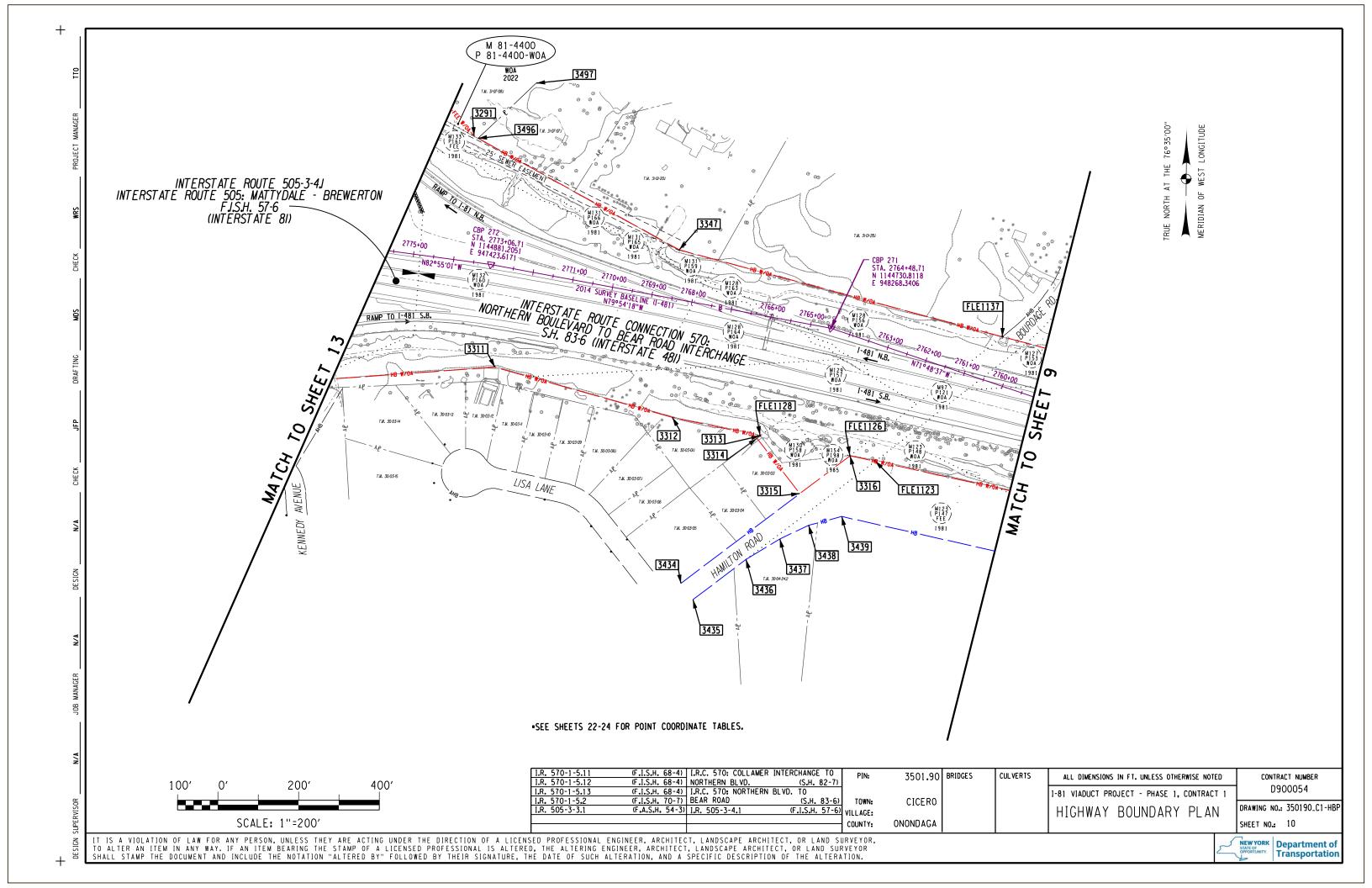


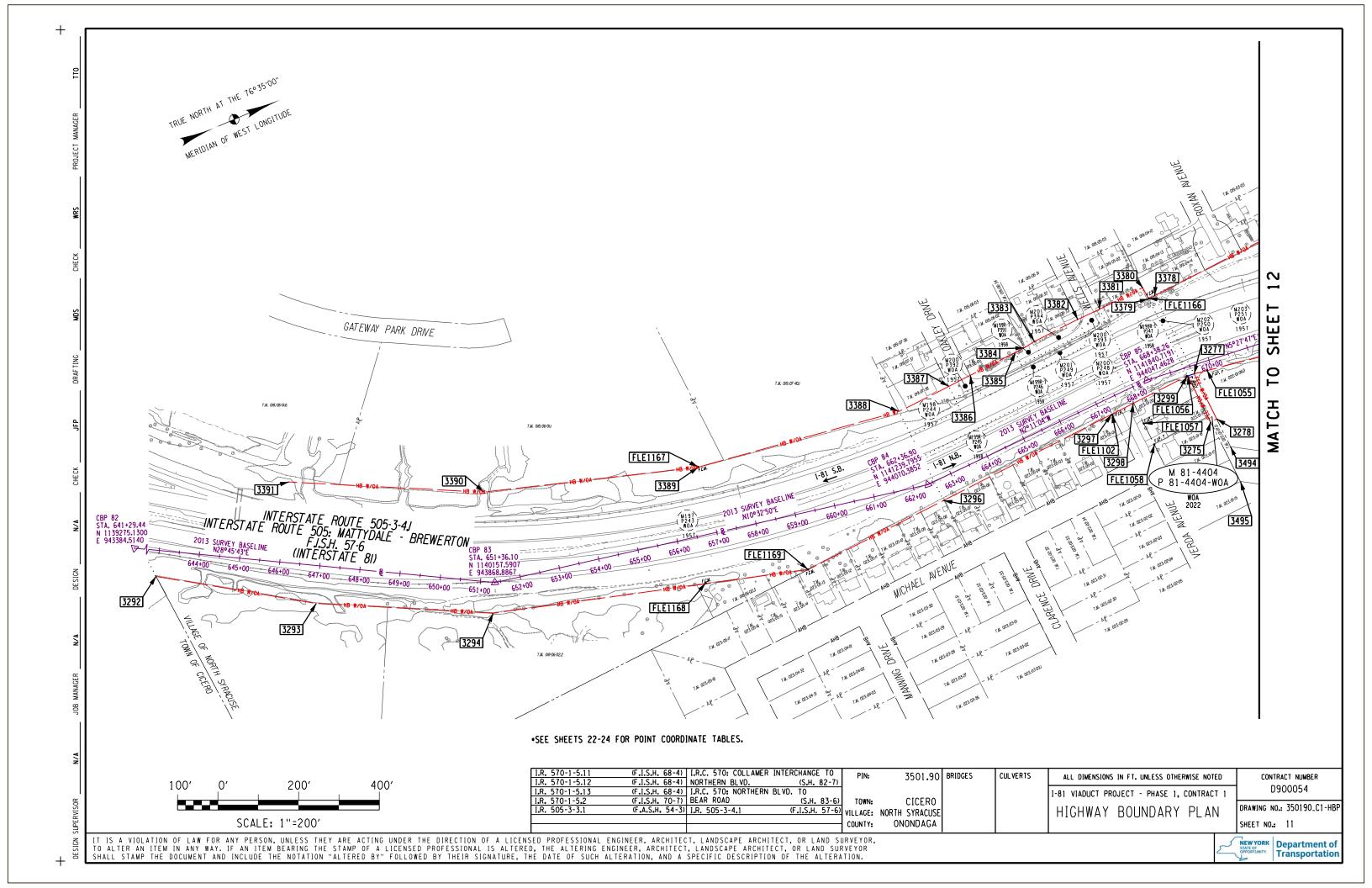


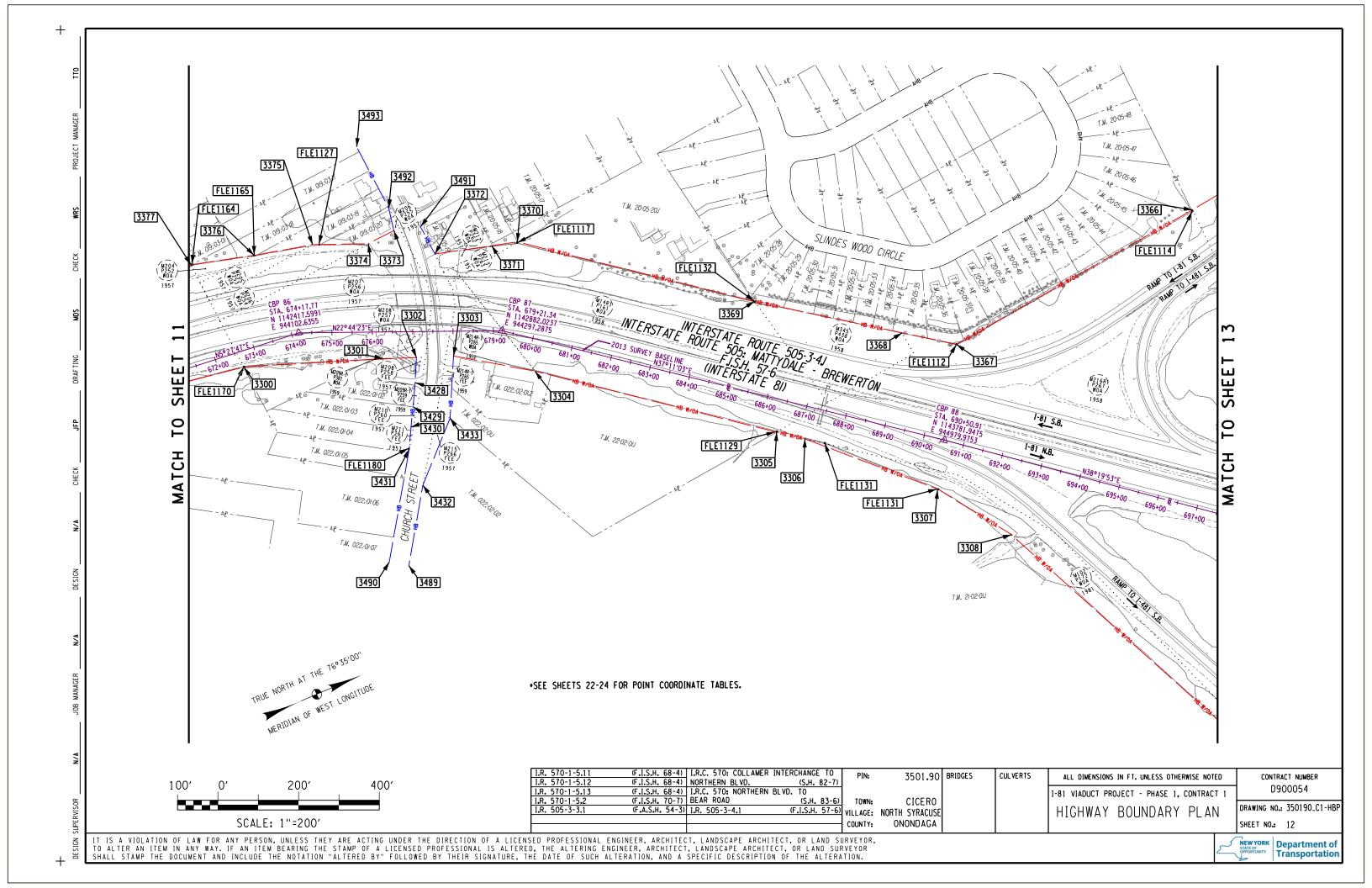


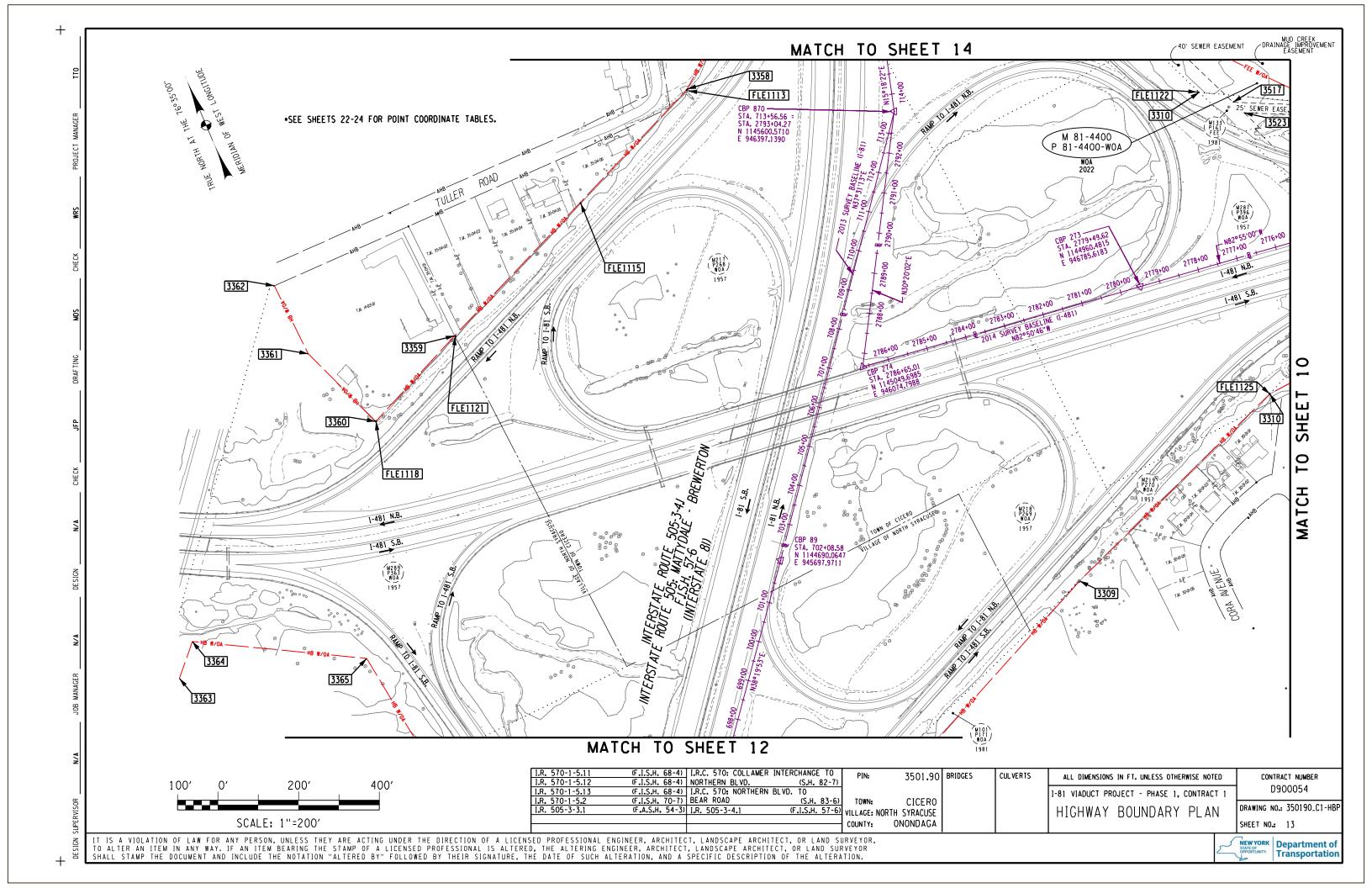


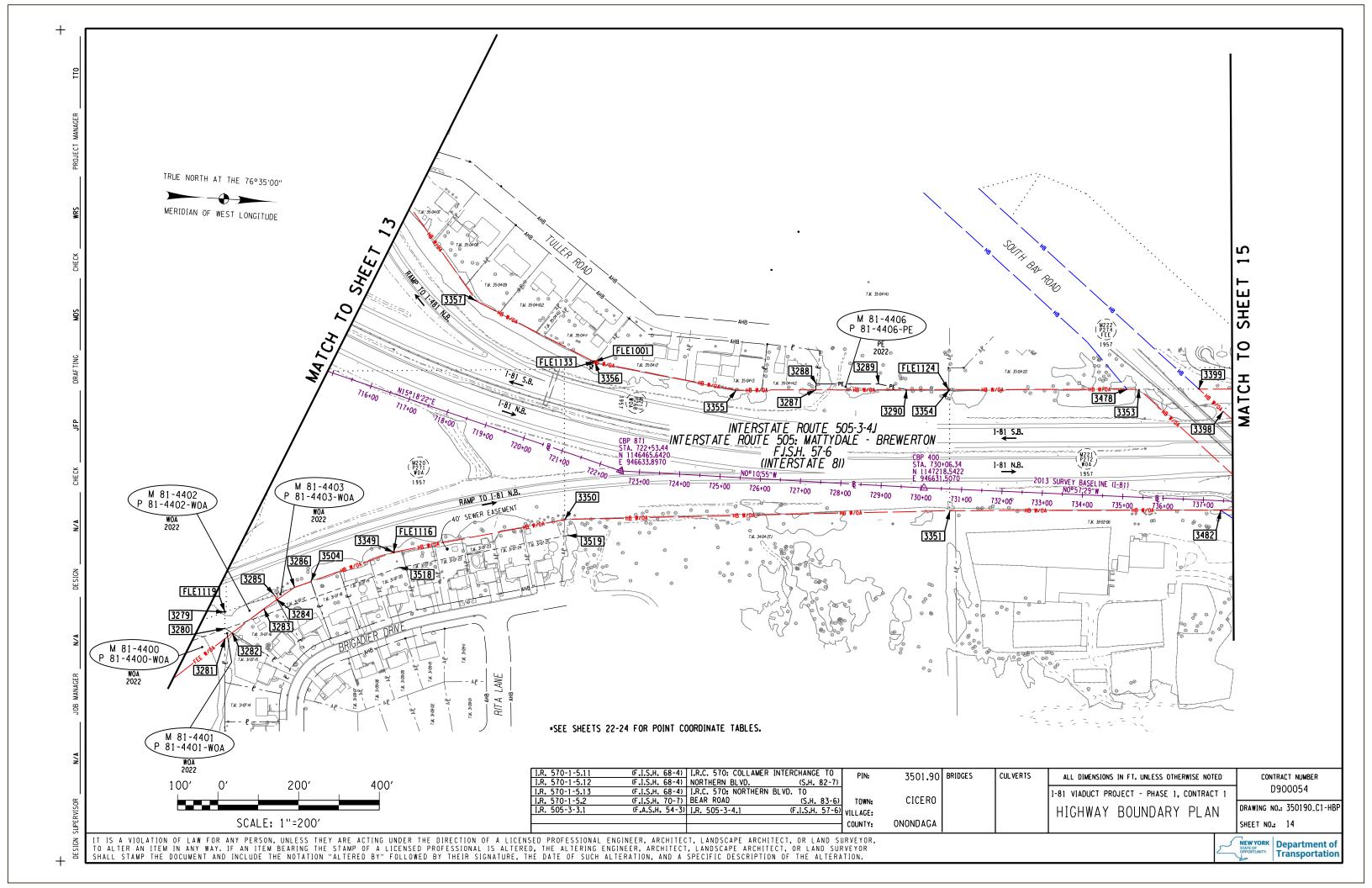


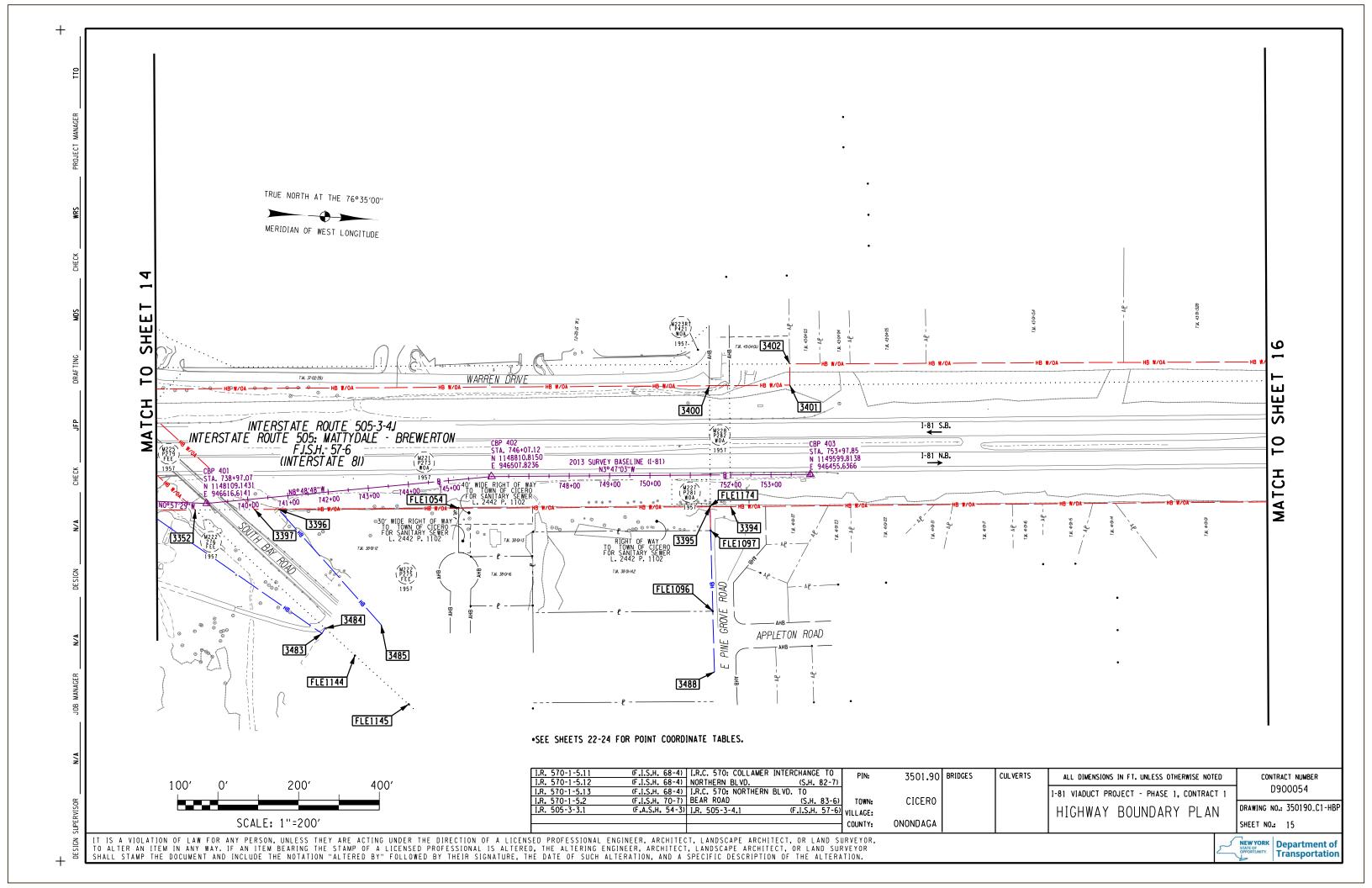


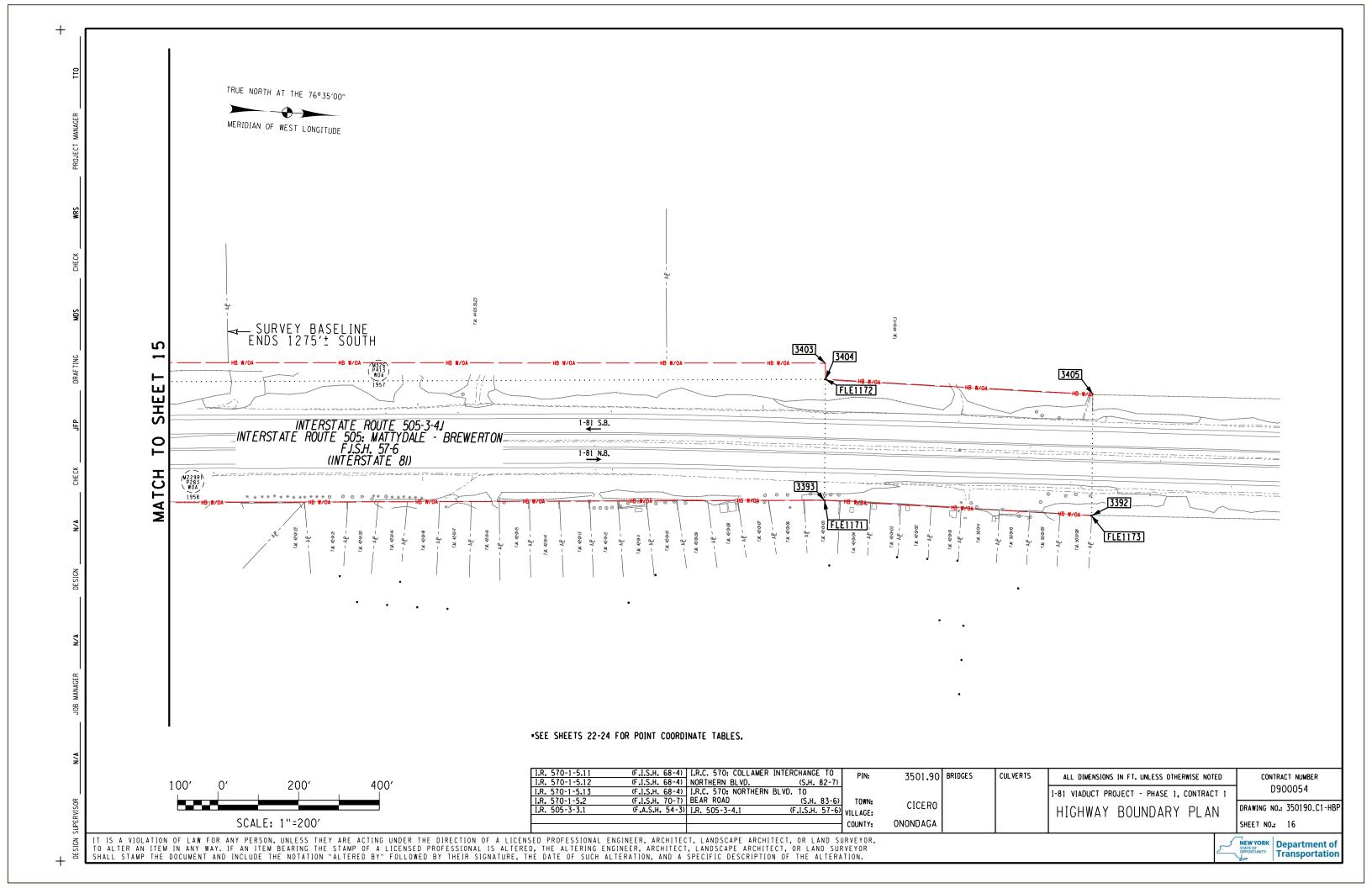


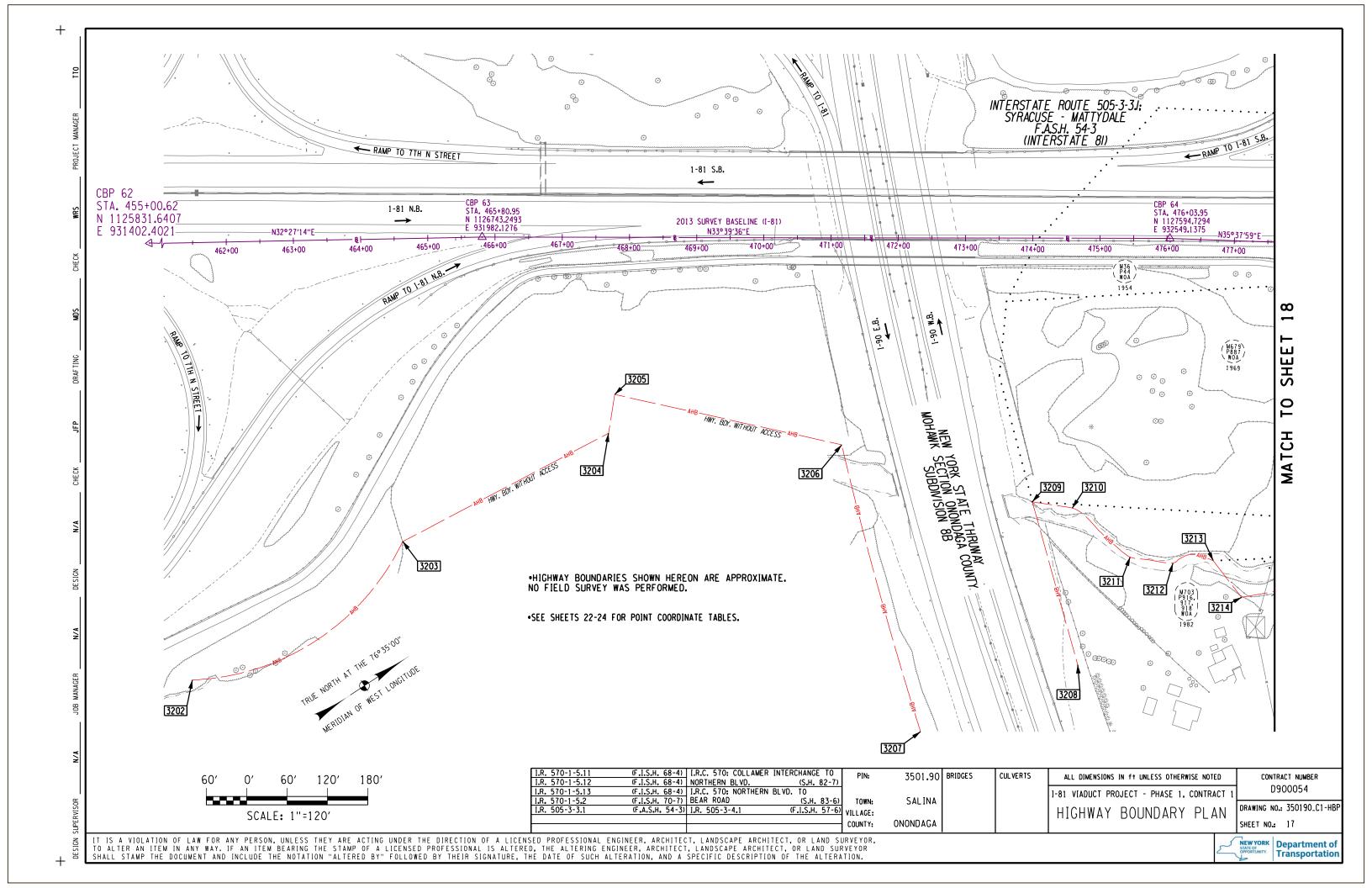


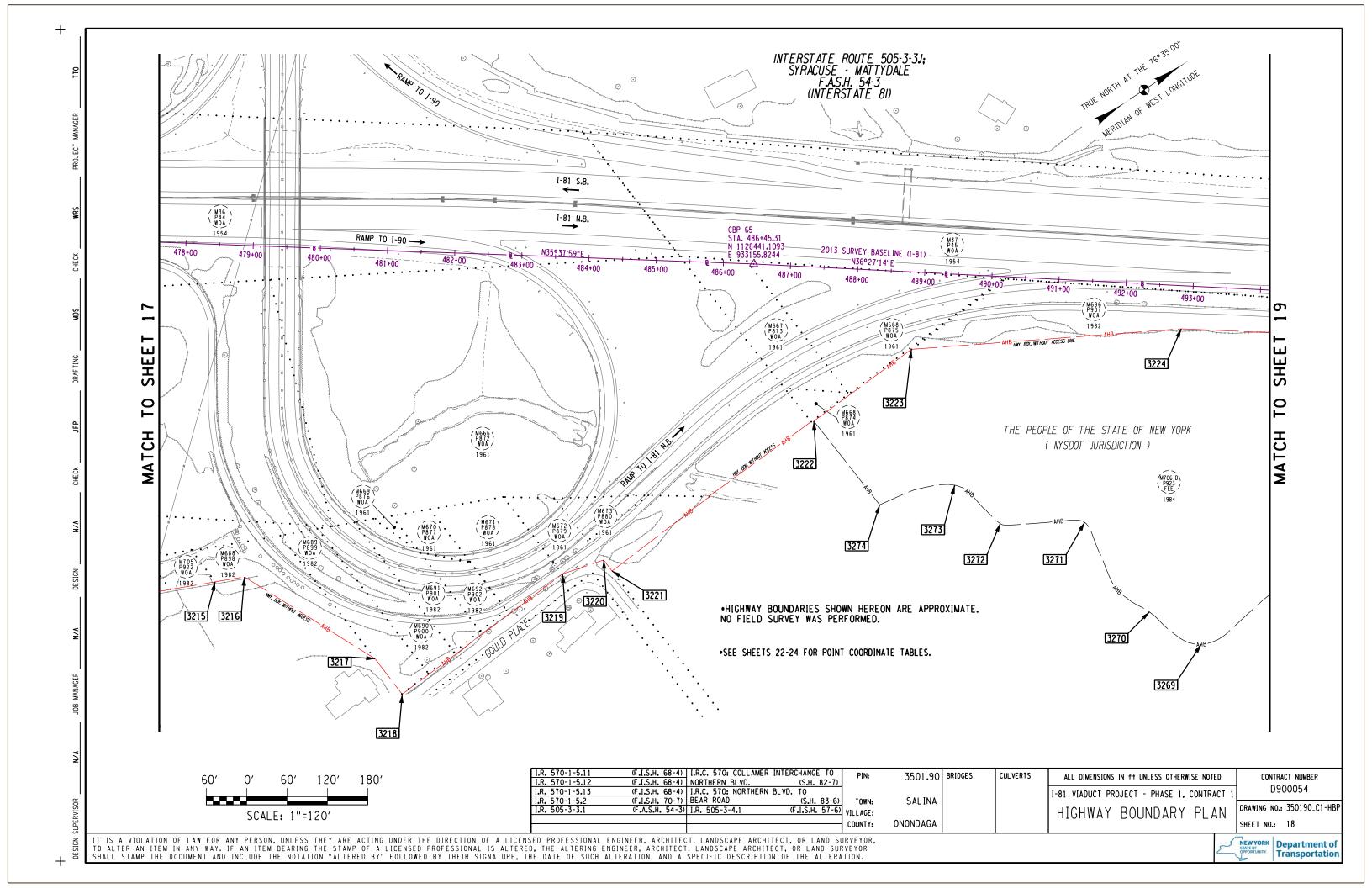


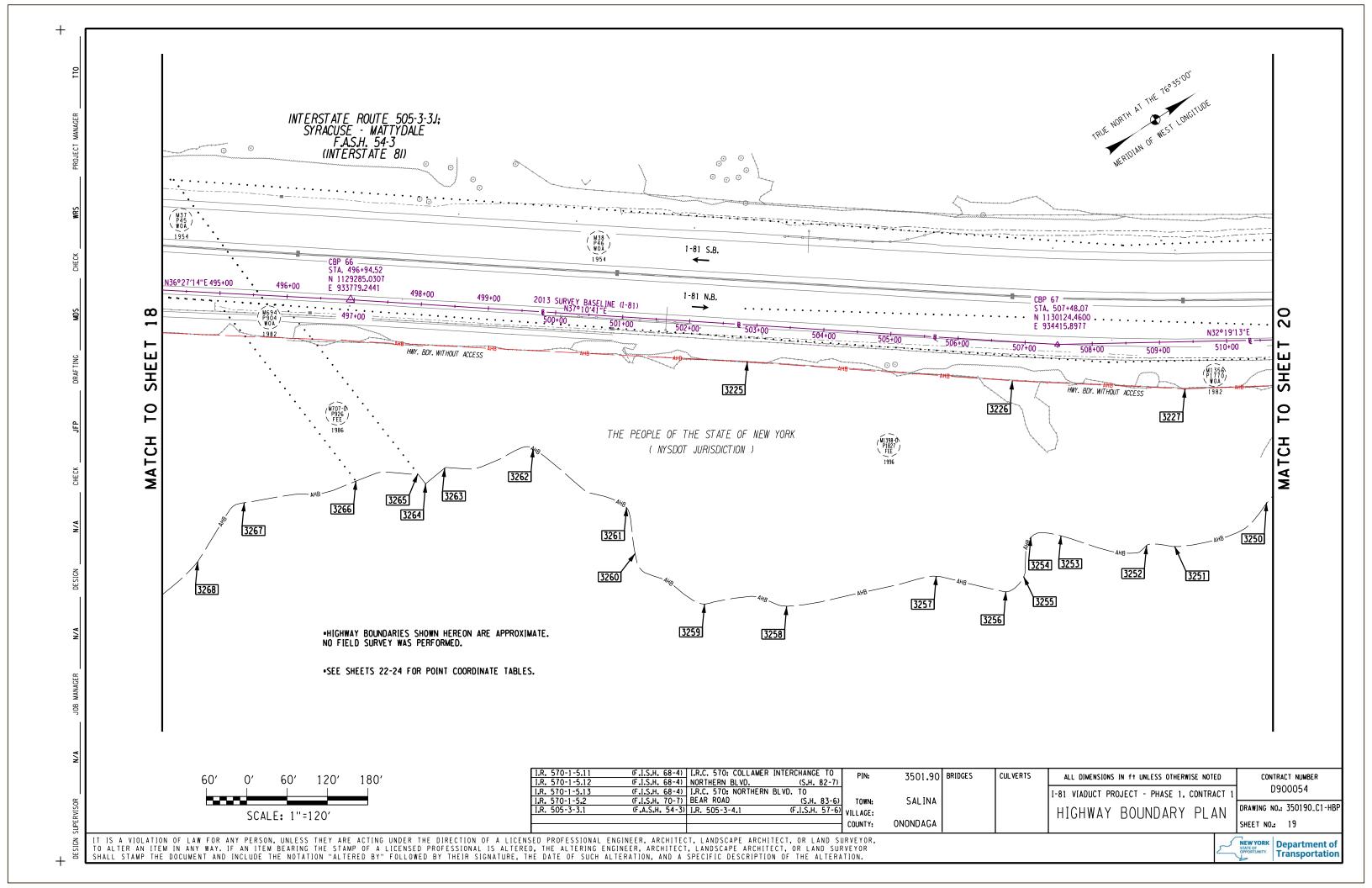


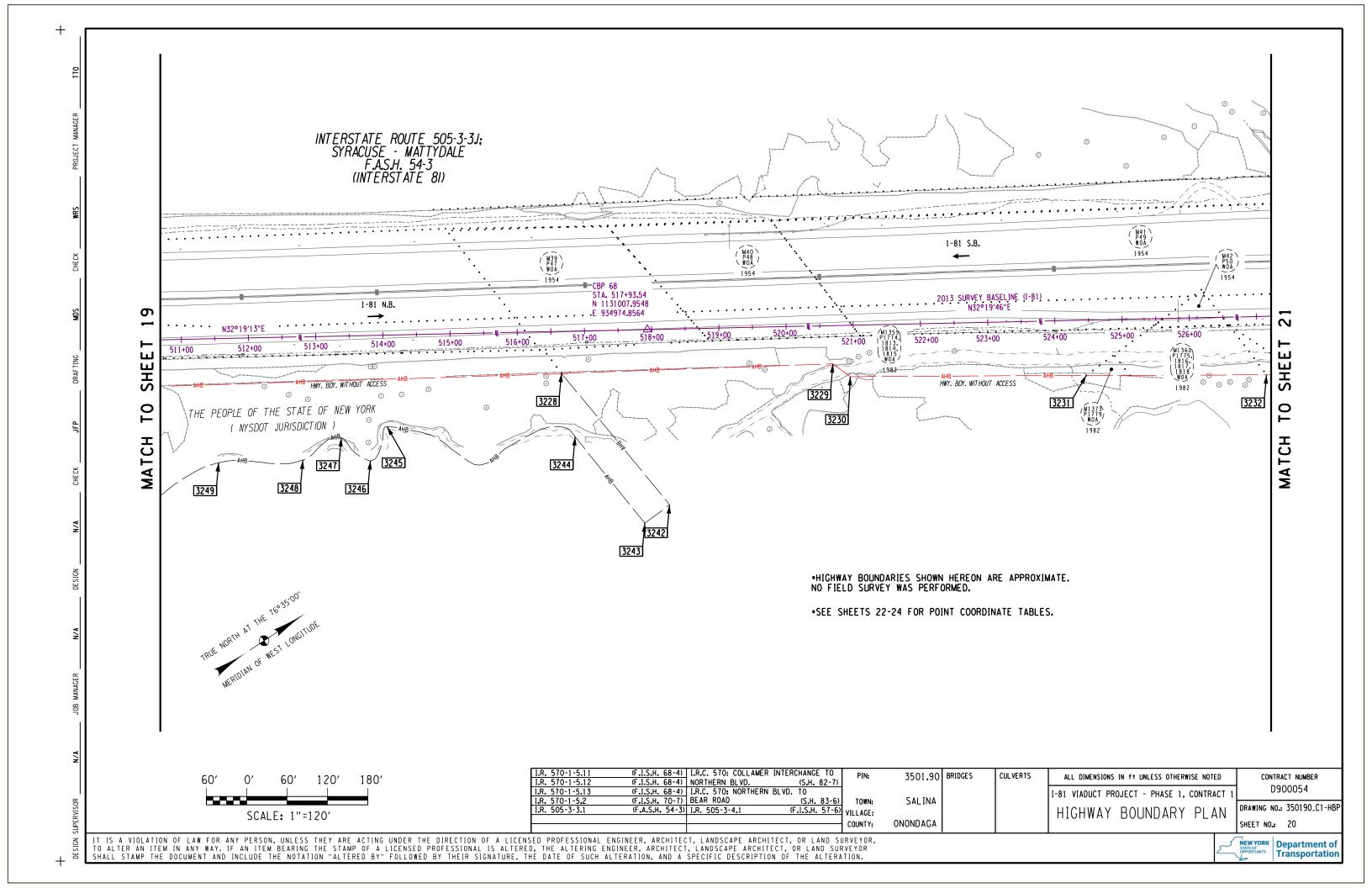


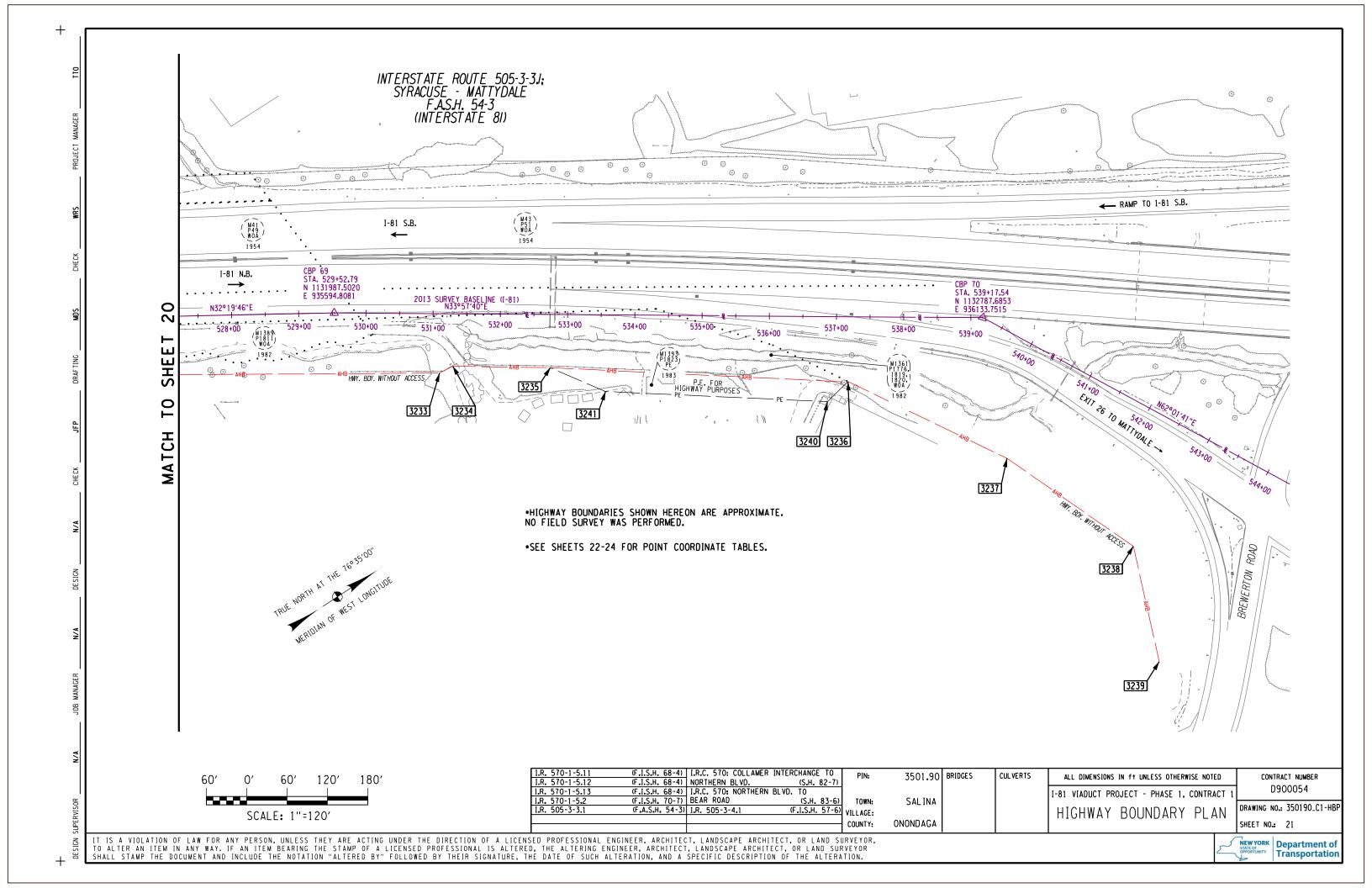












+ POINT NUMBER COORDINATE TABLE POINT NORTHING EASTING DESCRIPTION 1000 1146809.795 946299.175 1001 1146384.529 946367.376 1002 1116070.042 962410.794 1003 1146046.415 945891.443 1004 1146046.415 945891.438 1005 1146127.590 945947.471 1006 1146169.633 946041.600 1007 1146464.318 946256.117 1008 1146870.284 946016.130 IRON PIPE 1011 1145957.305 947080.556 1017 1144163.595 951045.037 1019 1144201.517 950873.725 1025 1146053.308 947050.806 1031 1144327.518 946805.266 1034 1144071.262 946708.139 1036 | 1149511.808 | 945966.862 IRON PIPE 1149627.813 945566.209 1037 1038 1153221.695 945777.837 1040 1149710.428 945881.081 1041 1149803.040 946712.249 1153141.386 945647.988 1045 1149704.998 945804.458 1046 1149684.781 946724.022 1047 1153136.446 945570.632 1048 1149698.866 945727.524 1050 1153190.809 945478.160 1051 1149633.078 945641.014 1053 1148922.407 946638.479 1054 1148733.857 946590.653 1055 1141987.691 944083.830 1056 1141935.747 944077.302 IRON PIPE 1057 1141791.374 944143.108 1058 1141794.665 944201.007 1059 | 1149362.332 | 945978.999 1060 1148947.522 947075.709 1065 1150189.075 946643.204 1068 1150268.888 946637.457 1070 1150377.696 946715.402 1072 1145814.836 945178.079 1074 1145815.225 945258.148 1076 1145863.268 945149.790 1084 1144103.346 951300.091 IRON ROD 1143902.822 946723.308 1089 1144400.568 946858.241 1095 1148923.452 946698.856 IRON ROD 1096 1149378.341 946808.432 1097 | 1149361.105 | 946609.215 1098 1148778.192 946831.639 1099 1148771.381 946709.161 IRON ROD 1100 1148931.867 946821.178 1101 1142272.222 944472.396 IRON ROD 1102 1141728.148 944091.333 1103 1147261.795 946330.710 IRON ROD 1104 | 1147299.633 | 946328.299 1105 1149641.975 947019.097 1106 1150383.040 946795.378 1107 1149628.817 946879.959 1150388.585 946875.102 1109 1149490.733 946706.565 1111 1149733.452 947010.599 IRON ROD
 1112
 1143903.875
 944773.515
 CONC. R.O.W. MON.

 1113
 1145852.752
 945945.927
 CONC. R.O.W. MON.
 1114 | 1144571.712 | 944702.148 | CONC. R.O.W. MON.

IRON PIPE

IRON PIPE

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IRON PIPE

IRON ROD

	DOINT NUM	ADED COODDINA	TE TABLE
POINT	NORTHING	MBER COORDINA EASTING	DESCRIPTION
1115	1145699.266	945592.614	CONC. R.O.W. MON.
1116	1145915.983	946869.159	CONC. R.O.W. MON.
1117	1143003.047	944111.510	CONC. R.O.W. MON.
1118	1145403.455	944912.535	CONC. R.O.W. MON.
1119	1145506.395	947041.483	CONC. R.O.W. MON.
1120	1144566.699	949166.380	CONC. R.O.W. MON.
1121	1145519.271	945177.218	CONC. R.O.W. MON.
1122	1145346.931	947107.483	CONC. R.O.W. MON.
1123	1144402.614	948380.832	CONC. R.O.W. MON.
1124	1147265.678	946385.879	CONC. R.O.W. MON.
1125	1144589.149	946975.230	CONC. R.O.W. MON.
1126	1144414.594	948317.758	CONC. R.O.W. MON.
1127	1142550.171	943921.855	CONC. R.O.W. MON.
1128	1144462.536	948094.497	CONC. R.O.W. MON.
1129	1143409.091	944795.842	CONC. R.O.W. MON.
1130	1143507.494	944869.761	CONC. R.O.W. MON.
1131	1143720.209	945086.036	CONC. R.O.W. MON.
1132	1143486.806	944478.676	CONC. R.O.W. MON.
1133	1146384.555	946367.696	CONC. R.O.W. MON.
1134	1115791.249	961930.943	CONC. R.O.W. MON.
1135	1115416.216	961800.948	CONC. R.O.W. MON.
1136	1144682.778	948812.179	CONC. R.O.W. MON.
1137	1144713.596	948694.000	CONC. R.O.W. MON.
1138	1114523.703	962624.351	CONC. R.O.W. MON.
1139	1116461.920	962388.379	CONC. R.O.W. MON.
1140	1116327.939	962037.555	CONC. R.O.W. MON.
1141	1114406.443	959362.027	CONC. R.O.W. MON.
1142	1113255.094	962837.515	CONC. R.O.W. MON.
1143	1114116.722	958796.840	CONC. R.O.W. MON.
1144 1145	1148499.027	946970.969	CONC. R.O.W. MON.
1145	1148639.600 1144183.204	947083.629 949550.988	CONC. R.O.W. MON. CONC. R.O.W. MON.
1147	1143476.299	952454.343	CONC. R.O.W. MON.
1148	1144336.504	950122.605	CONC. R.O.W. MON.
1149	1144408.086	949929.769	CONC. R.O.W. MON.
1150	1143826.745	951059.118	CONC. R.O.W. MON.
1151	1144132.062	951176.485	CONC. R.O.W. MON.
1152	1143299.010	952879.870	CONC. R.O.W. MON.
1153	1143951.936	950529.021	CONC. R.O.W. MON.
1154	1143671.667	951696.759	CONC. R.O.W. MON.
1155	1143187.416	953004.846	CONC. R.O.W. MON.
1156	1144038.299	951581.586	CONC. R.O.W. MON.
1157	1143539.311	951965.947	CONC. R.O.W. MON.
1158	1143032.521	953131.437	CONC. R.O.W. MON.
1159	1144231.354	949273.507	CONC. R.O.W. MON.
1160	1144111.391	951266.101	CONC. R.O.W. MON.
1161	1143558.977	952170.654	CONC. R.O.W. MON.
1162	1142728.676	953254.859	CONC. R.O.W. MON.
1164	1142239.865	943842.060	CONC. R.O.W. MON.
1165	1142391.661	943882.570	CONC. R.O.W. MON.
1166	1141924.699	943863.124	CONC. R.O.W. MON.
1167	1140733.909	943804.815	CONC. R.O.W. MON.
1168	1140636.984	944076.901	CONC. R.O.W. MON.
1169	1140883.691	944146.482	CONC. R.O.W. MON.
1170	1142259.214	944126.048	CONC. R.O.W. MON.
1171 1172	1152355.665 1152337.523	946344.897	CONC. R.O.W. MON. CONC. R.O.W. MON.
1173	1153018.009	946044.776 946339.346	CONC. R.O.W. MON.
1173	1149355.951	946549.867	CONC. R.O.W. MON.
1175	1114412.716	959579.366	CONC. R.O.W. MON.
1176	1113863.048	959602.492	CONC. R.O.W. MON.
1178	1146809.115	946114.409	MAG NAIL
1179	1144163.832	951645.955	MAG NAIL

POINT	POINT NUN NORTHING	ABER COORDINA EASTING	TE TABLE DESCRIPTION
1180	1142554.405	944474.854	MAG NAIL
1182	1123288.026	961516.202	IRON PIPE
1183	1124658.903	961604.059	IRON PIPE
1184	1125700.419	961590.776	IRON ROD
1185	1120178.571	961625.333	IRON ROD
1186	1121146.827	961053.283	IRON ROD
1187	1124815.067	961857.827	IRON ROD
1188	1116327.984	962037.520	CONC. R.O.W. MON.
1189	1120605.004	961550.653	CONC. R.O.W. MON.
1190	1123241.319	961509.383	CONC. R.O.W. MON.
1191	1123964.156	961899.893	CONC. R.O.W. MON.
1192	1128623.930	961443.850	CONC. R.O.W. MON.
1193	1116461.831	962388.231	CONC. R.O.W. MON.
1194	1120636.837	961537.695	CONC. R.O.W. MON.
1195	1123285.130	961952.457	CONC. R.O.W. MON.
1196	1123990.634	962041.321	CONC. R.O.W. MON.
1197	1125740.491	961986.106	CONC. R.O.W. MON.
1198	1128642.298	961399.125	CONC. R.O.W. MON.
1199	1116594.358	962403.716	CONC. R.O.W. MON.
1200	1120649.409	962130.236	CONC. R.O.W. MON.
1201	1124049.841	961900.535	CONC. R.O.W. MON.
1202	1125748.734	962084.902	CONC. R.O.W. MON.
1203	1116853.101	962351.463	CONC. R.O.W. MON.
1204	1120845.685	962262.210	CONC. R.O.W. MON.
1205	1123516.120	961905.345	CONC. R.O.W. MON.
1206	1124115.552	962117.963	CONC. R.O.W. MON.
1207	1126050.448	961837.758	CONC. R.O.W. MON.
1208	1127470.947	961994.365	CONC. R.O.W. MON.
1209	1128777.983	961069.039	CONC. R.O.W. MON.
1210	1121072.361	962493.924	CONC. R.O.W. MON.
1211	1123635.869	961898.601	CONC. R.O.W. MON.
1212	1124384.788	961606.995	CONC. R.O.W. MON.
1213	1126933.142	961843.649	CONC. R.O.W. MON.
1214	1127836.272	961526.602	CONC. R.O.W. MON.
1215	1129253.498	960970.630	CONC. R.O.W. MON.
1216	1119487.701	961959.126	CONC. R.O.W. MON.
1217	1121096.263	961058.298	CONC. R.O.W. MON.
1218	1123765.461	961587.398	CONC. R.O.W. MON.
1219	1126942.878	961974.063	CONC. R.O.W. MON.
1220	1127856.613	962094.026	CONC. R.O.W. MON.
1221	1123770.365	962282.883	CONC. R.O.W. MON.
1222	1124809.067	961601.640	CONC. R.O.W. MON.
1223	1127858.790	962133.892	CONC. R.O.W. MON.
1224	1120196.708	961923.434	CONC. R.O.W. MON.
1225	1121538.702	960898.213	CONC. R.O.W. MON.
1226	1123925.993	962167.830	CONC. R.O.W. MON.
1227	1127258.297	962070.810	CONC. R.O.W. MON.
1228	1120203.597	961624.335	CONC. R.O.W. MON.
1229	1121701.335	962452.134	CONC. R.O.W. MON.
1230	1123937.880	961951.248	CONC. R.O.W. MON.
1231	1124830.809	961997.866	CONC. R.O.W. MON.
1232	1127414.032	962142.215	CONC. R.O.W. MON.
1233	1129562.116	962206.910	CONC. R.O.W. MON.
1234	1120302.121	961963.995	CONC. R.O.W. MON.
1235	1121839.834	962551.364	CONC. R.O.W. MON.
1236	1123940.474	962043.216	CONC. R.O.W. MON.
1237	1124833.014	962097.940	CONC. R.O.W. MON.
1238	1127422.618	962147.938	CONC. R.O.W. MON.
1239	1128504.661	961496.715	CONC. R.O.W. MON.
1240	1129688.251	961983.601	CONC. R.O.W. MON.
3007	1113244.571	962851.590	HWY. BDY. W/OA
3008	1113256.895	962836.840	HWY. BDY. W/OA
3009	1113900.136	962719.433	HWY. BDY. W/OA

		ADER COORDINA	
POINT	NORTHING	EASTING	DESCRIPTION
3010	1115737.713	962437.551	HWY. BDY. W/OA
3011	1116003.889	962415.295	HWY. BDY. W/OA
3012	1116492.753	962386.619	HWY. BDY. W/OA
3013	1116557.801	962411.283	HWY. BDY. W/OA
3014	1116853.176	962351.469	HWY. BDY. W/OA
3015	1117683.126	962309.593	HWY. BDY. W/OA
3016	1117648.707	962190.534	HWY. BDY. W/OA
3017	1117424.116	962236.274	HWY. BDY. W/OA
3018	1117402.661	962240.606	HWY. BDY. W/OA
3019	1117312.656	961931.869	HWY. BDY. W/OA
3020	1117545.493	961901.478	HWY. BDY. W/OA
			HWY. BDY. W/OA
3021	1117513.498	961792.754	
3022	1117287.499	961845.577	HWY. BDY. W/OA
3023	1116579.055	962011.138	HWY. BDY. W/OA
3024	1116512.646	962026.755	HWY. BDY. W/OA
3025	1116327.966	962037.584	HWY. BDY. W/OA
3026	1115791.269	961931.113	HWY. BDY. W/OA
3027	1115416.268	961751.110	HWY. BDY. W/OA
3028	1114851.257	961301.108	HWY. BDY. W/OA
3029	1114439.084	960481.907	HWY. BDY. W/OA
3030	1114406.680	959362.384	HWY. BDY. W/OA
3031	1114455.692	958847.319	HWY. BDY. W/OA
3032	1114500.858	958515.012	HWY. BDY. W/OA
3033	1114156.868	958524.484	HWY. BDY. W/OA
3034	1114117.016	958796.908	HWY. BDY. W/OA
3035	1113825.714	959720.460	HWY. BDY. W/OA
3036	1113606.464	960152.986	HWY. BDY. W/OA
3037	1113357.052	960535.119	HWY. BDY. W/OA
3038	1113277.119	960540.077	HWY. BDY. W/OA
3039	1113283.516	960629.611	HWY. BDY. W/OA
3040	1113186.640	960747.629	HWY. BDY. W/OA
3042	1116556.196	962894.722	HWY. BDY.
3043	1116598.633	962403.027	HWY. BDY.
3044	1116596.132	962007.151	HWY. BDY.
3045	1116626.708	961241.806	HWY. BDY.
3046	1123019.931	962334.023	HWY. BDY.
3047	1123005.640	962124.520	HWY. BDY.
3048	1122962.215		
		962355.791	HWY. BDY.
3049	1122948.536	962159.353	HWY. BDY.
3050	1117506.353	962219.526	HWY. BDY.
3051	1122937.615	961151.256	HWY. BDY.
3052	1122877.323	961146.722	HWY. BDY.
3054	1123770.730	962282.705	HWY. BDY.
3055	1123890.829	962043.992	HWY. BDY.
3056	1123992.968	962041.214	HWY. BDY.
3057	1124115.087	962018.128	HWY. BDY.
	1124113.067	961997.959	
3058			HWY. BDY.
3059	1127263.003	961970.978	HWY. BDY.
3060	1127470.399	961994.069	HWY. BDY.
3061	1127475.508	962060.823	HWY. BDY.
3062	1127480.818	962143.870	HWY. BDY.
3063	1127487.118	962226.782	HWY. BDY.
3064	1127489.846	962268.891	HWY. BDY.
3065	1127466.868	962179.188	HWY. BDY.
3066	1127356.490		
		962101.466	HWY. BDY.
3067	1127258.094	962071.027	HWY. BDY.
3068	1124833.079	962097.929	HWY. BDY.
3069	1124115.640	962118.155	HWY. BDY.
3070	1123925.823	962167.945	HWY. BDY.
3071	1127533.121	962151.950	HWY. BDY.
3072	1127490.606	961536.845	HWY. BDY.
3073	1127470 275	961226 817	HW/W RIN
3073 3074	1127470.375 1127421.420	961226.817 961230.488	HWY. BDY. HWY. BDY.

POINT NUMBER COORDINATE TABLE

I.R. 570-1-5.11	(F.I.S.H. 68-4)	I.R.C. 570: COLLAMER	INTERCHANGE TO	PIN:
I.R. 570-1-5.12	(F.I.S.H. 68-4)	NORTHERN BLVD.	(S.H. 82-7)	
I.R. 570-1-5.13		I.R.C. 570: NORTHERN	BLVD. TO	
I.R. 570-1-5.2	(F.I.S.H. 70-7)	BEAR ROAD	(S.H. 83-6)	TOWN:
I.R. 505-3-3.1	(F.A.S.H. 54-3)	I.R. 505-3-4.1	(F.I.S.H. 57-6)	VILLAGE:
				COUNTY:

3501.90 BRIDGES

ONONDAGA

CULVERTS ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED I-81 VIADUCT PROJECT - PHASE 1, CONTRACT HIGHWAY BOUNDARY PLAN

CONTRACT NUMBER D900054

DRAWING NO.: 350190_C1-HBP SHEET NO.: 22

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



2	DOINT	,	MBER COORDINA	
	90INT 3075	NORTHING 1127441.380	961538.534	DESCRIPTION HWY. BDY.
	3076	1119036.744	962015.885	HWY. BDY. W/OA
, 	3077	1119037.238	961977.741	HWY. BDY. W/OA
AGE	3078	1119485.628	961953.334	HWY. BDY. W/OA
NAM	3079	1119467.611	961661.292	HWY. BDY. W/OA
5	3080	1119569.777 1120203.767	961648.454	HWY. BDY. W/OA
TRUJEC I MANAGER	3081 3082	1120203.767	961624.321 961553.425	HWY. BDY. W/OA HWY. BDY. W/OA
	3083	1120636.562	961537.505	HWY. BDY. W/OA
	3084	1121096.730	961058.012	HWY. BDY. W/OA
	3085	1121454.452	961035.725	HWY. BDY. W/OA
<u> </u>	3086	1121538.489	960898.020 962551.478	HWY. BDY. W/OA HWY. BDY. W/OA
 	3091 3092	1121839.942 1121701.451	962452.599	HWY. BDY. W/OA
	3093	1121072.763	962493.792	HWY. BDY. W/OA
	3094	1120846.287	962262.692	HWY. BDY. W/OA
5	3095	1120649.272	962130.169	HWY. BDY. W/OA
אר היים היים היים	3096	1120211.892	961922.544	HWY. BDY. W/OA
ıl	3097 3098	1119594.505 1119486.020	961946.043 961959.675	HWY. BDY. W/OA HWY. BDY. W/OA
	3099	1122751.135	962281.563	HWY. BDY. W/OA
	3100	1123285.316	961952.241	HWY. BDY. W/OA
S I	3101	1123516.158	961905.244	HWY. BDY. W/OA
	3102	1123635.627	961898.499	HWY. BDY. W/OA
	3103 3104	1124049.925 1124218.787	961900.434 961876.944	HWY. BDY. W/OA HWY. BDY. W/OA
اا	3105	1124216.767	961850.535	HWY. BDY. W/OA
DRAF LING	3106	1126050.397	961837.552	HWY. BDY. W/OA
L A	3108	1127858.330	962174.593	HWY. BDY. W/OA
ī	3109	1127837.174	961524.953	HWY. BDY. W/OA
	3110 3111	1126044.562 1124384.692	961586.461 961606.932	HWY. BDY. W/OA HWY. BDY. W/OA
	3112	1123765.220	961587.715	HWY. BDY. W/OA
닄	3113	1123241.070	961509.163	HWY. BDY. W/OA
	3114	1123055.775	961414.656	HWY. BDY. W/OA
	3115	1122952.443	961359.899	HWY. BDY. W/OA
<u> </u>	3116 3117	1122888.371 1122784.757	961300.388 961201.843	HWY. BDY. W/OA HWY. BDY. W/OA
CHE CA	3117	1127530.898	962110.012	HWY. BDY.
ا , ا	3119	1127461.376	961847.146	2022 FEE ACQ.
	3120	1127462.820	961870.669	2022 FEE ACQ.
	3121	1127512.650	961870.675	2022 FEE ACQ.
¥	3122 3123	1127510.881 1127670.032	961847.483 961870.695	2022 FEE ACQ. 2022 FEE ACQ.
- 	3124	1127670.850	961935.690	2022 FEE ACQ.
	3125	1127850.542	961935.429	2022 FEE ACQ.
	3126	1127847.752	961849.773	2022 FEE ACQ.
DESIGN	3127	1115136.184	962529.742	PERMANENT EASEMI
i	3128 3129	1115313.004 1115371.494	962525.772 962525.801	PERMANENT EASEM PERMANENT EASEM
1	3130	11157371.474	962464.734	PERMANENT EASEM
	3131	1116070.077	962442.908	PERMANENT EASEM
.	3132	1116071.541	962471.030	PERMANENT EASEM
ž	3133	1116415.545	962443.816	PERMANENT EASEM
	3134 3135	1116484.715 1116622.553	962515.709 962398.170	PERMANENT EASEMI PERMANENT EASEMI
	3136	1116622.342	962513.287	PERMANENT EASEM
<u>.</u>	3137	1116672.592	962513.163	PERMANENT EASEM
A P C	3138	1116672.881	962387.979	PERMANENT EASEM
JUD MANAGEN	3139	1117333.542	961929.278	PERMANENT EASEM
9	3140 3141	1117418.404 1119038.096	962217.025 961911.375	HWY. BDY. PERMANENT EASEM
ì	3141	1119480.446	961869.341	PERMANENT EASEM
N/A				
SUPERVISOR				

DOI:		ABER COORDINA	
POINT	NORTHING	EASTING	DESCRIPTION
3143	1119466.887	961649.465	PERMANENT EASEMENT
3144	1120308.694	961968.504	PERMANENT EASEMENT
3145	1120258.355	961992.986	PERMANENT EASEMENT
3146	1119934.120	962572.053	PERMANENT EASEMENT
3147	1119864.765	962532.419	PERMANENT EASEMENT
3148	1120178.729	961971.442	PERMANENT EASEMENT
3149	1120176.918	961923.877	PERMANENT EASEMENT
3150	1123844.592	961988.566	PERMANENT EASEMENT
3151	1123940.940	962042.630	PERMANENT EASEMENT
3152	1123938.036	961950.868	PERMANENT EASEMENT
3153	1127857.034	962134.783	PERMANENT EASEMENT
3154	1127855.698	962093.778	PERMANENT EASEMENT
3155	1128126.414	962076.851	PERMANENT EASEMENT
3156	1128146.646	962075.744	PERMANENT EASEMENT
3157	1128139.536	961852.462	PERMANENT EASEMENT
3158	1128138.791	961852.474	PERMANENT EASEMENT
3159	1128118.679	961852.809	PERMANENT EASEMENT
3160	1128126.183	961502.005	PERMANENT EASEMENT
3161	1128209.554	961449.740	PERMANENT EASEMENT
3162	1128285.316	961499.966	PERMANENT EASEMENT
3163	1128131.527	962224.967	HWY. BDY. W/OA
3164	1128106.577	961502.257	HWY. BDY. W/OA
3165	1128502.700	961497.179	HWY. BDY. W/OA
3166	1128623.425	961443.376	HWY. BDY. W/OA
3167	1128777.383	961068.968	HWY. BDY. W/OA
3168	1128908.401	960988.126	HWY. BDY. W/OA
3171	1129028.242	960981.958	HWY. BDY. W/OA
3172	1129238.928	960971.114	HWY. BDY. W/OA
3173	1129239.067	960969.172	HWY. BDY. W/OA
3174	1129423.421	961124.770	HWY. BDY. W/OA
3175	1129518.115	961337.079	HWY. BDY. W/OA
3176	1129546.509	961537.361	HWY. BDY. W/OA
3177	1129738.859	961535.631	HWY. BDY. W/OA
3181	1129750.511	961958.819	HWY. BDY. W/OA
3182	1129688.800	961984.029	HWY. BDY. W/OA
3183	1129562.728	962207.639	HWY. BDY. W/OA
3184	1129558.054	962353.983	HWY. BDY. W/OA
3192	1129534.683	961453.942	PERMANENT EASEMENT
3193	1129660.312	961536.338	PERMANENT EASEMENT
3196	1129737.481	961485.604	PERMANENT EASEMENT
3197	1129527.727	961404.877	PERMANENT EASEMENT
3198	1116238.595	962401.528	PERMANENT EASEMENT
3199	1116236.704	962436.017	PERMANENT EASEMENT
3200	1116291.293	962445.018	PERMANENT EASEMENT
3201	1116292.835	962398.346	PERMANENT EASEMENT
3202	1126019.814	932292.799	APROX. HWY. BDY.
3203	1126393.987	932294.333	APROX. HWY. BDY.
3204	1126738.734	932329.108	APROX. HWY. BDY.
3205	1126778.132	932286.081	APROX. HWY. BDY.
3206	11277018.291	932535.048	APROX. HWY. BDY.
	1126880.254		APROX. HWY. BDY.
3207		932955.737	
3208	1127130.136	933001.677	APROX. HWY. BDY.
3209	1127207.780	932762.721	APROX. HWY. BDY.
3210	1127252.189	932803.097	APROX. HWY. BDY.
3211	1127283.635	932911.616	APROX. HWY. BDY.
3212	1127331.702	932954.081	APROX. HWY. BDY.
3213	1127383.699	932984.381	APROX. HWY. BDY.
3214	1127388.775	933053.223	APROX. HWY. BDY.
3215	1127511.896	933106.984	APROX. HWY. BDY.
3216	1127552.455	933125.049	APROX. HWY. BDY.
3217	1127646.701	933333.679	APROX. HWY. BDY.
3218	1127651.324	933400.041	APROX. HWY. BDY.
3219	1127948.993	933383.016	APROX. HWY. BDY.

		/IBER COORDINA	
POINT	NORTHING	EASTING	DESCRIPTION
3220	1128011.572	933399.184	APROX. HWY. BDY.
3221	1128012.986	933419.908	APROX. HWY. BDY.
3222	1128386.353	933399.949	APROX. HWY. BDY.
3223	1128566.308	933391.340	APROX. HWY. BDY.
3224	1128917.706	933587.614	APROX. HWY. BDY.
3225	1129725.991	934182.418	APROX. HWY. BDY.
3226	1130039.005	934423.877	APROX. HWY. BDY.
3227	1130246.370	934575.749	APROX. HWY. BDY.
3228	1130865.518	934958.685	APROX. HWY. BDY.
3229	1131209.823	935170.037	APROX. HWY. BDY.
3230	1131220.952	935200.380	APROX. HWY. BDY.
3231	1131514.734	935392.623	APROX. HWY. BDY.
3232	1131738.575	935540.164	APROX. HWY. BDY.
3233	1132068.549	935755.791	APROX. HWY. BDY.
3234	1132090.760	935758.377	APROX. HWY. BDY.
3235	1132210.440	935840.295	APROX. HWY. BDY.
3236	1132567.123	936102.435	APROX. HWY. BDY.
3237	1132701.995	936328.041	APROX. HWY. BDY.
3238	1132786.539	936540.864	APROX. HWY. BDY.
3239	1132723.941	936705.355	APROX. HWY. BDY.
3240	1132526.140	936110.271	PERMANENT EASEMENT
3240	1132259.335	935915.324	PERMANENT EASEMENT
	1130891.610		
3242 3243		935210.551	APROX. HWY. BDY.
	1130845.623	935212.829	APROX. HWY. BDY.
3244	1130830.307	935048.542	APROX. HWY. BDY.
3245	1130605.319	934881.342	APROX. HWY. BDY.
3246	1130556.820	934910.029	APROX. HWY. BDY.
3247	1130539.767	934857.383	APROX. HWY. BDY.
3248	1130473.642	934853.614	APROX. HWY. BDY.
3249	1130366.937	934787.435	APROX. HWY. BDY.
3250	1130253.591	934784.649	APROX. HWY. BDY.
3251	1130101.090	934760.553	APROX. HWY. BDY.
3252	1130069.941	934738.392	APROX. HWY. BDY.
3253	1129971.922	934655.786	APROX. HWY. BDY.
3254	1129933.472	934632.839	APROX. HWY. BDY.
3255	1129895.931	934673.099	APROX. HWY. BDY.
3256	1129857.577	934680.160	APROX. HWY. BDY.
3257	1129783.935	934603.608	APROX. HWY. BDY.
3258	1129573.856	934517.763	APROX. HWY. BDY.
3259	1129473.677	934447.560	APROX. HWY. BDY.
3260	1129431.847	934321.385	APROX. HWY. BDY.
3261	1129456.547	934263.685	APROX. HWY. BDY.
3262	1129389.061	934113.894	APROX. HWY. BDY.
3263	1129263.293	934065.309	APROX. HWY. BDY.
3264	1129226.814	934069.124	APROX. HWY. BDY.
3265	1129225.329	934050.398	APROX. HWY. BDY.
3266	1129225.329	934008.268	APROX. HWY. BDY.
3267	1129142.455	933943.350	APROX. HWY. BDY.
3268		933978.097	APROX. HWY. BDY.
	1128880.101		APROX. HWY. BDY.
3269	1128683.167	933995.355 933912.377	
3270	1128645.721		APROX. HWY. BDY.
3271	1128638.998	933747.982	APROX. HWY. BDY.
3272	1128533.066	933680.309	APROX. HWY. BDY.
3273	1128508.467	933595.344	APROX. HWY. BDY.
3274	1128399.304	933557.969	APROX. HWY. BDY.
3275	1141945.154	944205.357	2022 FEE ACQ.
3276	1141937.904	944077.791	2022 FEE ACQ.
3277	1141954.544	944079.797	2022 FEE ACQ.
3278	1141961.628	944204.420	2022 FEE ACQ.
3279	1145506.638	947041.993	2022 FEE ACQ.
3280	1145509.052	947082.423	2022 FEE ACQ.
	1145510 570	047107.000	2022 FEE ACQ.
3281	1145510.578	947107.980	ZUZZ I LL AUQ.

	POINT NUN	IBER COORDINA	TE TABLE
POINT	NORTHING	EASTING	DESCRIPTION
3283	1145602.542	947028.038	2022 FEE ACQ.
3284	1145633.871	947003.310	2022 FEE ACQ.
3285	1145626.158	946991.415	2022 FEE ACQ.
3286	1145675.277	946970.629	2022 FEE ACQ.
3287	1146935.967	946404.948	2022 PERM. EASE. PROP.
3288	1146936.794	946390.478	2022 PERM. EASE. PROP.
3289	1147091.402	946380.909	2022 PERM. EASE. PROP.
3290	1147161.434	946390.994	2022 PERM. EASE. PROP.
3291	1145199.195	947378.658	2022 FEE ACQ.
3292	1139392.021	943522.261	HWY. BDY. W/OA
3293	1139730.531	943741.167	HWY. BDY. W/OA
3294	1140123.658	943936.811	HWY. BDY. W/OA
3295	1140883.592	944146.509	HWY. BDY. W/OA
3296	1141259.813	944122.105	HWY. BDY. W/OA
3297	1141726.774	944090.535	HWY. BDY. W/OA
3298	1141786.677	944087.128	HWY. BDY. W/OA
3299	1141936.378	944077.611	HWY. BDY. W/OA
3300	1142258.668	944126.387	HWY. BDY. W/OA
3301	1142594.431	944249.055	HWY. BDY. W/OA
3302	1142660.801	944274.131	HWY. BDY. W/OA
3303	1142747.148	944307.074	HWY. BDY. W/OA
3304	1142917.831	944421.593	HWY. BDY. W/OA
3305	1143408.227	944797.229	HWY. BDY. W/OA
3306	1143466.060	944840.308	HWY. BDY. W/OA
3307	1143719.913	945085.968	HWY. BDY. W/OA
3308	1143842.764	945261.822	HWY. BDY. W/OA
3309	1144349.677	946358.735	HWY. BDY. W/OA
3310	1144547.077	946975.159	HWY. BDY. W/OA
3311	1144626.446	947435.822	HWY. BDY. W/OA
3312	1144505.924	947876.898	HWY. BDY. W/OA
3313	1144462.235	948094.754	HWY. BDY. W/OA
3314	1144455.925	948087.126	HWY. BDY. W/OA
3315	1144320.190	948194.834	HWY. BDY. W/OA
3316	1144415.013	948318.325	HWY. BDY. W/OA
3317	1144243.234	949140.601	HWY. BDY. W/OA
3318	1144231.200	949273.421	HWY. BDY. W/OA
3319	1144182.948	949550.859	HWY. BDY. W/OA
3320	1143950.960	950530.665	
			HWY. BDY. W/OA
3321	1143825.977	951059.034	HWY. BDY. W/OA
3322	1143794.843	951203.467	HWY. BDY. W/OA
3323	1143787.834	951227.192	HWY. BDY. W/OA
3324	1143775.968	951294.751	HWY. BDY. W/OA
3325	1143752.936	951388.998	HWY. BDY. W/OA
3326	1143742.074	951389.596	HWY. BDY. W/OA
3327	1143714.886	951495.740	HWY. BDY. W/OA
3328	1143714.666	951495.004	HWY. BDY. W/OA
3329			HWY. BDY. W/OA
	1143714.024	951552.363	
3330	1143720.599	951651.049	HWY. BDY. W/OA
3331	1144012.922	951632.068	HWY. BDY. W/OA
3332	1144025.953	951631.619	HWY. BDY. W/OA
3333	1144037.989	951582.744	HWY. BDY. W/OA
3334	1144077.702	951410.098	HWY. BDY. W/OA
3335	1144252.675	950649.324	HWY. BDY. W/OA
3336	1144273.995	950509.470	HWY. BDY. W/OA
3337	1144275.773	950122.334	HWY. BDY. W/OA
3338	1144408.207	949930.255	HWY. BDY. W/OA
3339	1144488.550	949591.574	HWY. BDY. W/OA
3340	1144534.471	949395.500	HWY. BDY. W/OA
3341	1144584.142	949392.186	HWY. BDY. W/OA
3342	1144566.564	949166.629	HWY. BDY. W/OA
3343	1144575.524	949117.185	HWY. BDY. W/OA
3344	1144701.353	949106.413	HWY. BDY. W/OA
3345			
	1144682.719	948811.902	HWY. BDY. W/OA

POINT NUMBER COORDINATE TABLE

I.R. 570-1-5.11	(F.I.S.H. 68-4)	I.R.C. 570: COLLAMER	INTERCHANGE TO
I.R. 570-1-5.12	(F.I.S.H. 68-4)	NORTHERN BLVD.	(S.H. 82-7)
I.R. 570-1-5.13		I.R.C. 570: NORTHERN	BLVD. TO
I.R. 570-1-5.2	(F.I.S.H. 70-7)	BEAR ROAD	(S.H. 83-6)
I.R. 505-3-3.1	(F.A.S.H. 54-3)	I.R. 505-3-4.1	(F.I.S.H. 57-6)

3501.90 BRIDGES ONONDAGA

VILLAGE: COUNTY: CULVERTS ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED I-81 VIADUCT PROJECT - PHASE 1, CONTRACT HIGHWAY BOUNDARY PLAN

CONTRACT NUMBER D900054 DRAWING NO.: 350190_C1-HBP

SHEET NO. 23

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



POINT NUMBER COORDINATE TABLE POINT NORTHING EASTING 1144921.530 947890.055 3347 3348 1145344.806 947110.477 3349 1145915.782 946868.853 3350 1146334.030 946762.814 1147285.971 946683.860 3351 3352 1148082.503 946634.563 3353 1147736.622 946355.395 3354 1147267.439 946384.433 1146739.450 946417.110 3355 3356 1146385.794 946368.864 3357 1146083.087 946235.187 1145854.277 945947.314 3358 3359 | 1145520.951 | 945175.762 | 1145403.152 944912.042 3360 3361 1145623.428 944824.844 1145811.489 944814.400 3362 3363 1145010.850 944213.121 3364 1145082.255 944278.415 3365 1144872.613 944659.218 3366 1144573.017 944699.491 3367 1143903.836 944773.727 3368 1143791.475 944694.575 3369 1143486.164 944478.346 1143004.279 944110.042 3370 3371 1142942.224 944093.402 3372 1142804.663 944057.098 3373 1142734.244 943963.470 1142662.933 943967.920 3375 1142535.129 943915.346 3376 1142392.029 943882.420 1142238.490 943842.074 3377 3378 | 1141941.198 | 943862.991 | 3379 1141924.225 943863.956 3380 1141922.465 943833.006 1141802.658 943839.821 1141742.642 943841.232 3382 3383 1141622.892 943849.045 3384 1141593.111 943853.744 3385 1141568.151 943855.163 1141443.410 943863.260 3386 3387 1141383.563 943867.666 3388 1141245.786 943875.503 3389 1140733.982 943805.455 1140221.048 943652.179 3390 3391 | 1139786.892 | 943437.663 | 3392 1153019.119 946338.867 3393 1152354.936 946344.416 3394 1149406.886 946547.002 1149356.549 946550.386 3395 3396 1148288.095 946620.589 3397 1148229.198 946624.455 3398 | 1147947.812 | 946397.344 | 1147884.744 946346.439 3399 3400 1149336.881 946251.031 3401 1149535.969 946237.429 3402 | 1149532.152 | 946185.226 | 3403 1152335.617 946004.942 1152338.359 946044.848 3404 3405 1153002.542 946039.299 1143671.630 951696.937 3406 3407 1143559.029 952170.356 3408 1143476.116 952453.494 3409 | 1143401.309 | 952646.102 |

DESCRIPTION

HWY, BDY, W/OA

HWY. BDY. W/OA

HWY. BDY. W/OA

HWY. BDY. W/OA

HWY, BDY, W/OA

HWY. BDY. W/OA

HWY BDY W/OA

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HWY BDY W/OA

HWY. BDY. W/OA

HWY, BDY, W/OA

HWY. BDY. W/OA

HWY, BDY, W/OA

HWY. BDY. W/OA

HWY BDY W/OA

HWY. BDY. W/OA

POINT 3410 3411 3412 3413 3414 3415 3416	NORTHING 1143298.492 1143186.747 1143032.099	MBER COORDINA EASTING 952880.078 953005.118	DESCRIPTION HWY. BDY. W/OA HWY. BDY. W/OA
3410 3411 3412 3413 3414 3415 3416	1143298.492 1143186.747 1143032.099	952880.078	HWY. BDY. W/OA
3411 3412 3413 3414 3415 3416	1143186.747 1143032.099		
3412 3413 3414 3415 3416	1143032.099	755005.110	
3413 3414 3415 3416		953131.645	HWY. BDY. W/OA
3414 3415 3416	1142728.041	953255.414	HWY. BDY. W/OA
3415 3416	1142726.041	953404.926	HWY. BDY. W/OA
3416			
	1142548.421	953585.732	HWY. BDY. W/OA
	1142534.543	953619.210	HWY. BDY. W/OA
3417	1142550.598	953857.430	HWY. BDY. W/OA
3418	1143300.567	953690.855	HWY. BDY. W/OA
3419	1143766.053	953548.197	HWY. BDY. W/OA
3420	1143670.078	953426.442	HWY. BDY. W/OA
3421	1143682.224	953267.929	HWY. BDY. W/OA
3422	1143744.072	952890.191	HWY. BDY. W/OA
3423	1143846.633	952602.111	HWY. BDY. W/OA
3424	1143943.289	952543.952	HWY. BDY. W/OA
3425	1143896.292	952434.420	HWY. BDY. W/OA
3426	1143894.960	952213.738	HWY. BDY. W/OA
3427	1144016.728	951675.214	HWY. BDY. W/OA
3428	1142633.576	944330.556	HWY. BDY.
3429	1142604.983	944383.645	HWY. BDY.
3430	1142580.327	944427.327	HWY. BDY.
3431	1142554.532	944476.271	HWY. BDY.
3432	1142550.661	944571.382	HWY. BDY.
3433	1142678.132	944445.080	HWY. BDY.
3434	1144094.540	947901.492	HWY. BDY.
3435	1144054.667	947932.153	HWY. BDY.
3436	1144155.883	948062.791	HWY. BDY.
3437	1144207.283	948145.995	HWY. BDY.
3438	1144241.704	948217.551	HWY. BDY.
3439	1144264.139	948299.023	HWY. BDY.
3440	1144080.594	949149.152	HWY. BDY.
3441	1143640.083		HWY. BDY.
		949177.366	
3442	1143643.326	949226.760	HWY. BDY.
3443	1143746.349	949222.979	HWY. BDY.
3444	1143887.821	949237.491	HWY. BDY.
3445	1144073.231	949280.190	HWY. BDY.
3446	1143649.799	951012.166	HWY. BDY.
3447	1143692.984	951056.030	HWY. BDY.
3448	1143719.522	951091.183	HWY. BDY.
3449	1143760.063	951150.216	HWY. BDY.
3450	1143628.899	951080.343	HWY. BDY.
3451	1143661.670	951133.776	HWY. BDY.
3452	1143683.535	951184.746	HWY. BDY.
3453	1143699.786	951226.470	HWY. BDY.
3454	1143705.665	951276.764	HWY. BDY.
3455	1143699.133	951336.541	HWY. BDY.
3456	1143685.613	951392.700	HWY. BDY.
3457	1143639.614	951395.230	HWY. BDY.
3458	1143673.494	951444.021	HWY. BDY.
3459	1143673.494	951444.021	HWY. BDY.
3460	1143667.239	951475.317	HWY. BDY.
3461	1143638.745	951598.695	HWY. BDY.
3462	1143618.880	951631.473	HWY. BDY.
3463	1143602.262	951639.462	HWY. BDY.
3464	1143580.192	951654.887	HWY. BDY.
3465	1143548.232	951660.504	HWY. BDY.
3466	1143603.699	951714.612	HWY. BDY.
3467	1143603.879	951714.012	HWY. BDY.
3468	1143502.870	951701.218	HWY. BDY.
	1143523.021	951706.195	
3469			HWY. BDY.
3470	1143459.956	951739.174	HWY. BDY.
3471	1143458.154	951710.229	HWY. BDY.
3472	1143970.221	952606.720	HWY. BDY.

POINT NUMBER COORDINATE TABLE				
POINT	NORTHING	EASTING	DESCRIPTION	
3473	1144046.784	952687.000	HWY. BDY.	
3474	1144048.850	952717.171	HWY. BDY.	
3475	1144073.923	952715.321	HWY. BDY.	
3476	1144206.036	952852.878	HWY. BDY.	
3477	1144239.589	953383.380	HWY. BDY.	
			HWY. BDY.	
3478	1147707.014	946357.228		
3479	1147601.782	946246.565	HWY. BDY.	
3480	1147173.792	945901.124	HWY. BDY.	
3481	1147310.528	945882.978	HWY. BDY.	
3482	1147956.799	946642.342	HWY. BDY.	
3483	1148414.097	946921.477	HWY. BDY.	
3484	1148421.184	946907.920	HWY. BDY.	
3485	1148559.472	946891.027	HWY. BDY.	
3486	1149380.676	946548.287	HWY. BDY.	
3487	1149415.983	946956.372	HWY. BDY.	
3488	1149391.325	946958.506	HWY. BDY.	
3489	1142439.669	944740.365	HWY. BDY.	
3490	1142398.730	944713.475	HWY. BDY.	
3491	1142798.752	943980.800	HWY. BDY.	
3492	1142744.666	943907.120	HWY. BDY.	
3493	1142731.457	943736.639	HWY. BDY.	
3494	1141965.969	944280.799	PROPERTY LOT LINE	
3495	1141954.558	944370.793	PROPERTY LOT LINE	
3496	1145193.589	947388.983	PROPERTY LOT LINE	
	1145331.485	947531.835		
3497			PROPERTY LOT LINE	
3498	1145524.287	947337.544	PROPERTY LOT LINE	
3499	1145517.043	947216.245	PROPERTY LOT LINE	
3500	1145657.034	947235.943	PROPERTY LOT LINE	
3501	1145677.394	947174.588	PROPERTY LOT LINE	
3502	1145714.460	947127.598	PROPERTY LOT LINE	
3503	1145773.730	947091.640	PROPERTY LOT LINE	
3504	1145715.603	946953.564	PROPERTY LOT LINE	
3505	1142546.366	953384.495	PERMANENT EASEMENT	
3506	1143974.894	952359.211	PERMANENT EASEMENT	
3507	1144048.105	952480.883	PERMANENT EASEMENT	
3508	1142593.233	953190.571	PERMANENT EASEMENT	
3509	1143262.110	952050.607	PERMANENT EASEMENT	
3510	1143467.797	951865.186	PERMANENT EASEMENT	
3511	1143467.493	951860.195	PERMANENT EASEMENT	
3512	1143532.360	951856.151	PERMANENT EASEMENT	
3513	1144110.978	951265.385	PERMANENT EASEMENT	
3514	1144162.499	951243.043	PERMANENT EASEMENT	
3515	1144131.619	951175.677	PERMANENT EASEMENT	
3516	1144987.356	947806.774	PERMANENT EASEMENT	
3517	1144987.336			
		947177.406 946905.690	PERMANENT EASEMENT PERMANENT EASEMENT	
3518	1145931.370			
3519	1146343.860	946801.587	PERMANENT EASEMENT	
3520	1145143.777	947228.123	PERMANENT EASEMENT	
3521	1145207.392	947201.203	PERMANENT EASEMENT	
3522	1145204.156	947213.431	PERMANENT EASEMENT	
3523	1145254.494	947192.129	PERMANENT EASEMENT	
3524	1144965.028	947795.518	PERMANENT EASEMENT	
3526	1143394.710	952096.853	PERMANENT EASEMENT	
3527	1143524.824	951735.140	PERMANENT EASEMENT	
3527				
3527	1143459.956	951739.174	PERMANENT EASEMENT	
	1143459.956 1143539.202	951739.174 951965.933	PERMANENT EASEMENT PERMANENT EASEMENT	

COUNTY:

DOINT NUMBER COORDINATE TARKE

I.R. 570-1-5.11	(F.I.S.H. 68-4)	I.R.C. 570: COLLAMER INT	ERCHANGE TO	PIN:
I.R. 570-1-5.12	(F.I.S.H. 68-4)	NORTHERN BLVD.	(S.H. 82-7)	
I.R. 570-1-5.13	(F.I.S.H. 68-4)	I.R.C. 570: NORTHERN BLV	D. TO	
I.R. 570-1-5.2	(F.I.S.H. 70-7)	BEAR ROAD	(S.H. 83-6)	TOWN:
I.R. 505-3-3.1	(F.A.S.H. 54-3)	I.R. 505-3-4.1	(F.I.S.H. 57-6)	VILLAGE.
				VICENOE.

3501.90 BRIDGES CULVERTS ALL DIMENSIONS IN 11 UNLESS OTHERWISE NOTED

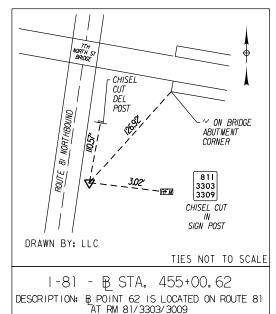
[-81 VIADUCT PROJECT - PHASE 1, CONTRACT HIGHWAY BOUNDARY PLAN

CONTRACT NUMBER
D900054

DRAWING NO.: 350190_C1-HBP SHEET NO.: 24

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



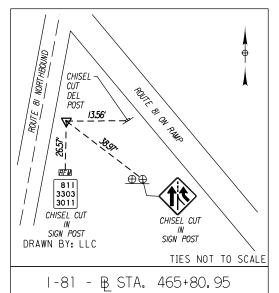


NYSPCS CENTRAL ZONE NAD 83/CORS 2011

E٠

1125831.6407

931402, 4021



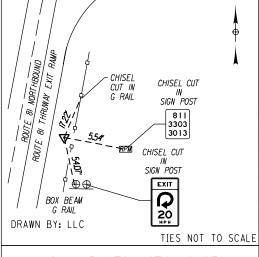
DESCRIPTION: B POINT 63 IS LOCATED ON ROUTE 81

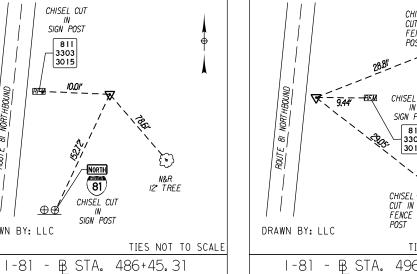
25 ± NORTH OF RM 81/3303/3011

NYSPCS CENTRAL ZONE NAD 83/CORS 2011

1126743. 2493

931982. 1276





I-81 - B STA. 476+03.95

N٥

DESCRIPTION: B POINT 64 IS LOCATED ON ROUTE 81 AT RM 81/3303/3013 NYSPCS CENTRAL ZONE NAD 83/CORS 2011

1127594. 7294 932549. 1375

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1128441.1093 N٥ 933155.8244

NORTH 81

CHISEL CUT

SIGN POST

DESCRIPTION: B POINT 65 IS LOCATED ON ROUTE 81

AT RM 81/3303/3015

CHISEL CUT IN SIGN POST

811 3303 3015

RF44

DRAWN BY: LLC

10.01

I-81 - B STA. 496+94.52

DESCRIPTION: \$ POINT 66 IS LOCATED ON ROUTE 81 AT RM 81/3303/3017

FENCE

POST

CHISEL CUT

SIGN POST

811 3303 3017

TIES NOT TO SCALE

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1129285.0307 933779, 2441

~B_

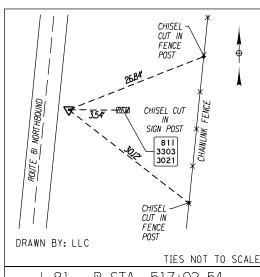
/ CHISEL CUT IN

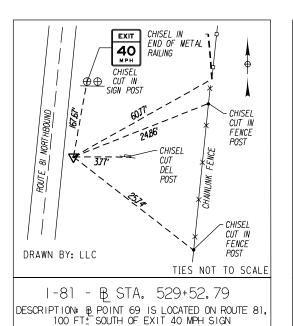
LIGHT POLE

CHISEL CUT IN

TS BASE

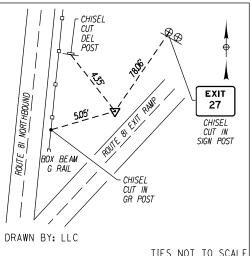
CHISEL CUT IN FENCE P0ST CHISEL CUT 3.90° SIGN POST 811 3303 3019 POUTE **FENCE** DRAWN BY: LLC TIES NOT TO SCALE I-81 - B STA. 507+48.07 DESCRIPTION: P POINT 67 IS LOCATED ON ROUTE 81 AT RM 81/3303/3019 NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1130124, 4600 N: 934415, 8977





NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1131987.5020

935594.8081



TIES NOT TO SCALE

DESCRIPTION: B POINT 70 IS LOCATED BETWEEN ROUTE 81 AND THE MATTYDALE EXIT RAMP

I-81 - β STA. 539+17.54

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1132787.6853 E: 936133,7515

TIES NOT TO SCALE I-81 - B STA. 547+59.06

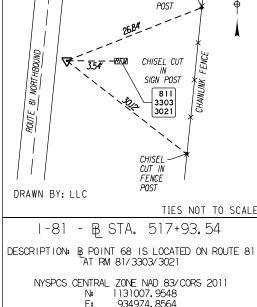
CHISEL

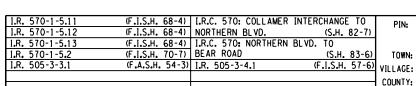
CUT IN LIGHT POLE

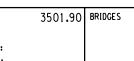
DRAWN BY: LLC

DESCRIPTION: B POINT 71 IS LOCATED AT THE INTERSECTION OF ROUTE 11 AND THE MATTYDALE EXIT RAMP

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1133182.3900 936876, 9627







ONONDAGA

CULVERTS

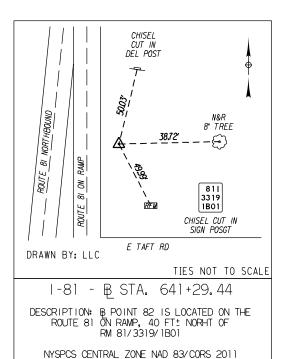
ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED I-81 VIADUCT PROJECT - PHASE 1, CONTRACT CONTRACT NUMBER D900054

DRAWING NO.: 350190_C1-HBP HIGHWAY BOUNDARY PLAN SHEET NO.: 25

> NEW YORK Department of Transportation

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

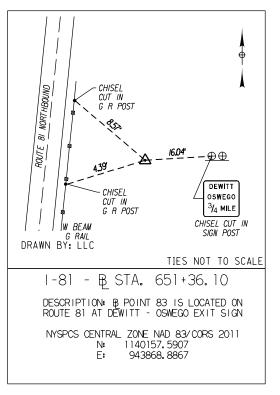
+

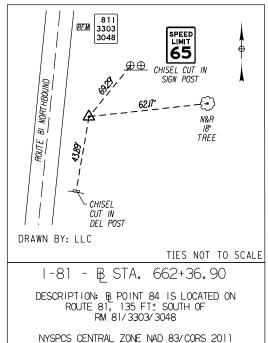


1139275.1300

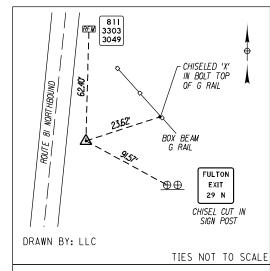
943384.5140

+





1141239.7955



| 1-81 - B STA. 668+38.26 | DESCRIPTION: B POINT 85 IS LOCATED ON ROUTE 81, | 60 FT: SOUTH OF RM 81/3303/3049

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1141840.7191 E: 944047.4628

7027 GPS 870

CHISEL CUT IN DELINEATOR POST

> 25 MPH

CHISEL CUT IN

SIGN POST

EXIT 29 N

3303 3058

10531

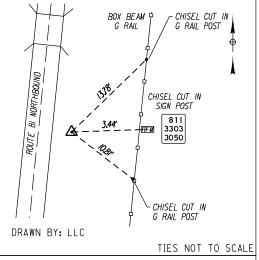
SIGN

EXIT

29 S

CHISEL CUT IN SIGN POST

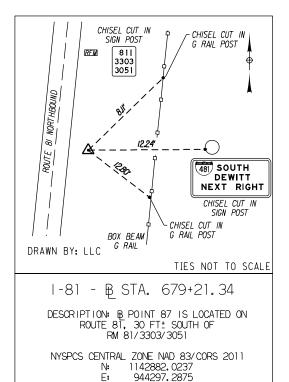
DRAWN BY: LLC

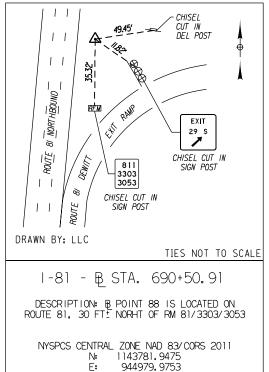


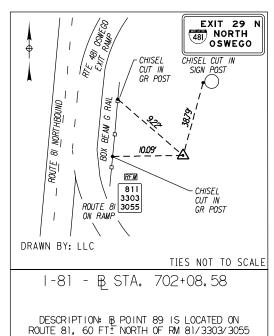
I-81 - ₿ STA. 674+17.77

DESCRIPTION: B POINT 86 IS LOCATED ON ROUTE 81 AT RM 81/3303/3050

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1142417.5991 E: 944102.6355



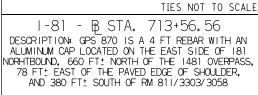




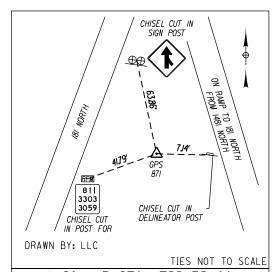
NYSPCS CENTRAL ZONE NAD 83/CORS 2011

1144690.0647

945697.9711



NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1145600.5710 E: 946397.1390



I-8] - B STA. 722+53.44

DESCRIPTION: GPS 871 IS A 4 FT REBAR WITH AN ALUMINUM CAP LOCATED ON THE WESTERLY SIDE OF THE ON RAMP LEADING TO 181 NORTH FROM 1481 NORTH, 40 FT: EAST OF RM 811/3303/3059, AND 1600 FT: NORTH OF THE 1481 OVERPASS

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1146465, 6420 E: 946633, 8970

I.R. 570-1-5.11	(F.I.S.H. 68-4)	I.R.C. 570: COLLAMER	INTERCHANGE TO	PIN:
I.R. 570-1-5.12		NORTHERN BLVD.	(S.H. 82-7)	L lin!
I.R. 570-1-5.13	(F.I.S.H. 68-4)	I.R.C. 570: NORTHERN	BLVD. TO	
I.R. 570-1-5.2	(F.I.S.H. 70-7)	BEAR ROAD	(S.H. 83-6)	TOWN:
I.R. 505-3-3.1	(F.A.S.H. 54-3)	I.R. 505-3-4.1	(F.I.S.H. 57-6)	VILLAGE.
				COUNTY:

IN: 3501.90 BRIDGES

DWN:
AGE:

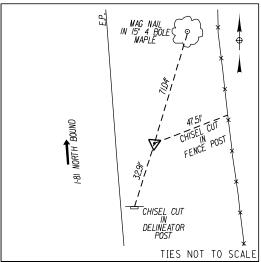
ONONDAGA

S CUL VERTS

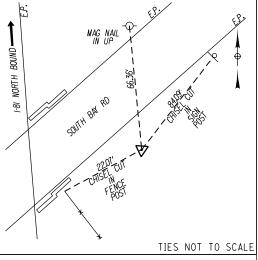
L-81 VIADUCT PROJECT - PHASE 1, CONTRACT

CONTRACT NUMBER
D900054

HIGHWAY BOUNDARY PLAN DRAWING NO.: 350190_C1-HBP SHEET NO.: 26

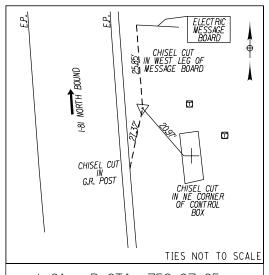


I-81 - B STA. 730+06.34 DESCRIPTION: B POINT 400 IS A 36" LONG REBAR WITH ALUMINUM CAP AND IS LOCATED ON THE EAST SIDE OF 1-81 NORTH 206' FT NORTH OF RM 811/3303/3060. NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1147218, 5422 946631.5070



I-81 - В STA. 738+97.07 DESCRIPTION: B POINT 401 IS A 36" LONG REBAR WITH ALLMINUM CAP AND IS LOCATED OFF THE SOUTH SIDE OF SOUTH BAY RD 21' FT EAST OF THE OVERPASS BRIDGE JOINT

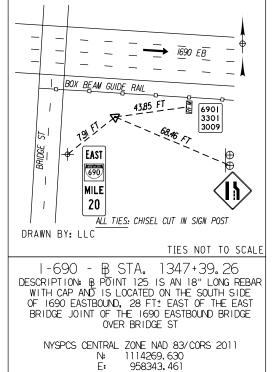
SPEED LIMIT CHISEL CUT TIES NOT TO SCALI I-81 - B STA. 746+07.12 DESCRIPTION: B POINT 402 IS A 36" LONG REBAR WITH ALUMINUM CAP AND IS LOCATED ON THE EAST SIDE OF I-81 NORTH BOUND 730± FT NORTH OF THE SOUTH BAY RD OVERPASS. NYSPCS CENTRAL ZONE NAD 83/CORS 2011 NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1148109. 1431 1148810.8150 946507.8236 946616,6141

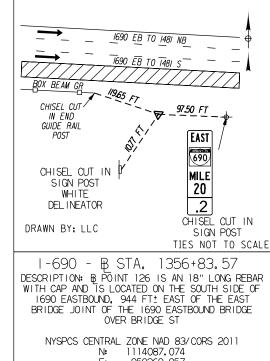


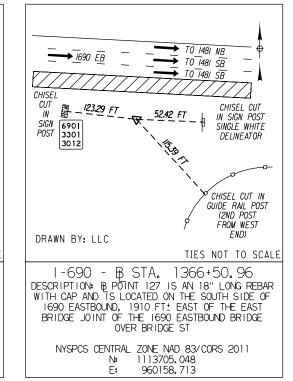
I-81 - B STA. 753+97.85 DESCRIPTION: B POINT 403 IS A 36" LONG REBAR WITH ALUMINUM CAP AND IS LOCATED ON THE EAST SIDE OF 1-81 NORTHBOUND 455± FT NORTH OF RM 811/3303/3064. NYSPCS CENTRAL ZONE NAD 83/CORS 2011

1149599, 8138 946455, 6366

I-690 BASELINE TIES

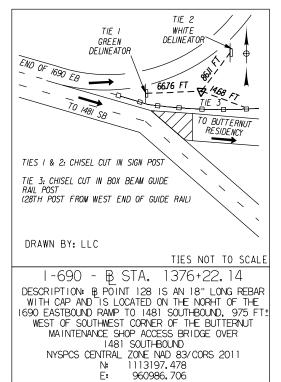






811 CHISEL CUT

3303 3064



I.R. 570-1-5.11	(F.I.S.H. 68-4)	I.R.C. 570: COLLAMER	INTERCHANGE TO	PIN:
I.R. 570-1-5.12	(F.I.S.H. 68-4)	NORTHERN BLVD.	(S.H. 82-7)	1 114
I.R. 570-1-5.13		I.R.C. 570: NORTHERN	BLVD. TO	
I.R. 570-1-5.2	(F.I.S.H. 70-7)		(S.H. 83-6)	TOW
I.R. 505-3-3.1	(F.A.S.H. 54-3)	I.R. 505-3-4.1	(F.I.S.H. 57-6)	VILLAGI
				COUNT

3501.90 BRIDGES ONONDAGA

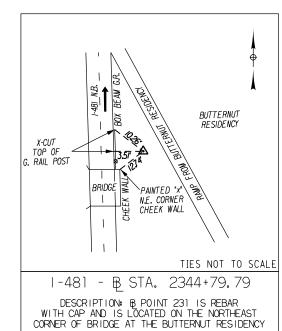
CULVERTS ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED I-81 VIADUCT PROJECT - PHASE 1, CONTRACT HIGHWAY BOUNDARY PLAN

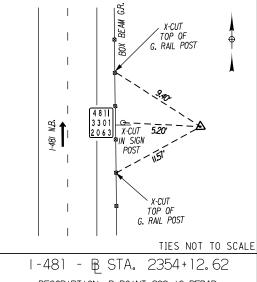
CONTRACT NUMBER D900054

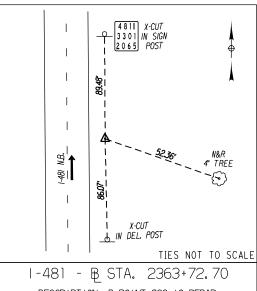
DRAWING NO.: 350190_C1-HBP SHEET NO.: 27

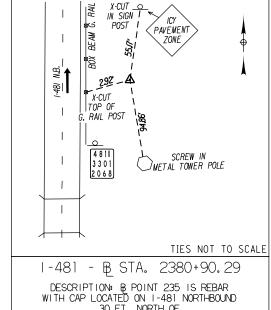
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.











DESCRIPTION: B POINT 232 IS REBAR WITH CAP LOCATED ON 1-481 NORTHBOUND AT ROUTE MARKER 4811/3301/2063.

DESCRIPTION: B POINT 233 IS REBAR WITH CAP LOCATED ON 1-481 NORTHBOUND, 90 FT. SOUTH OF ROUTE MARKER 4811/3301/2065.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1115016.4801

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1115979.9567 E: 962337, 2560

DESCRIPTION: B POINT 234 IS REBAR WITH CAP LOCATED ON 1-481 NORTHBOUND, 170 FT. SOUTH OF

ROUTE MARKER 4811/3301/2067.

X-CUT

RAIL POST

\&

x-CUT

BEAM

ã

I-481 - В STA.

IN DEL POST

x-CUT

IN SIGN POST \

 \oplus

2373+44.83

1-481

<u> 204" –`</u> ≱

EXIT 5 E-W

KIRKVILLE RD.

I MILE

TIES NOT TO SCALE

DESCRIPTION: B POINT 235 IS REBAR WITH CAP LOCATED ON 1-481 NORTHBOUND 30 FT. NORTH OF ROUTE MARKER 4811/3301/2068.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1116718.5370 E: 962236, 2084

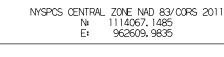
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1113141.3909 962724.5749

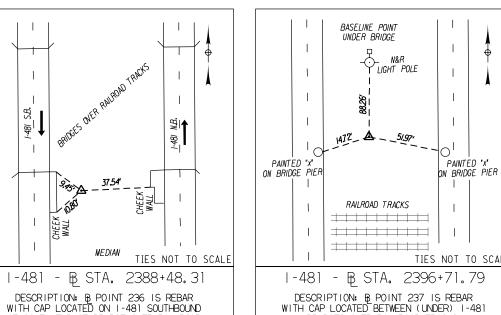
AT SOUTH END OF BRIDGE OVER RAILROAD

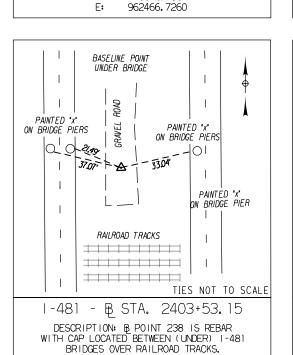
TRACKS.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1117454.3106

962053.9362



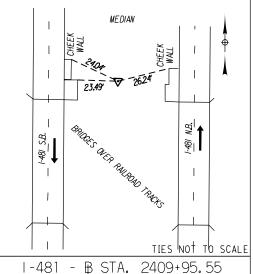




IN CENTER OF GRAVEL ROAD.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N# 1118946,4120

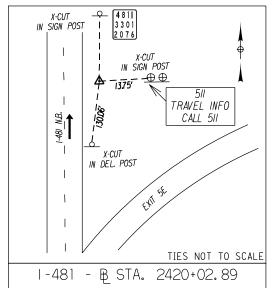
961858.5232



I-481 - <u>В</u> STA. 2409+95.55

DESCRIPTION: B POINT 239 IS REBAR
WITH CAP LOCATED IN HTE MEDIAN OF I-481
AT NORTH END OF BRIDGES OVER RAILROAD TRACKS.

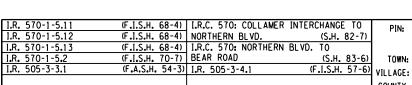
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1119586, 2635 961801.4192



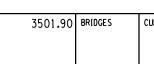
DESCRIPTION: B POINT 240 IS REBAR WITH CAP LOCATED ON 1-481 NORTHBOUND 60 FT. SOUTH OF ROUTE MARKER 4811/3301/2076.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1120592,5816 E: 961846,8643

PAINTED "X" ON BRIDGE PIEF	BASELINE POINT UNDER BRIDGE N&R LIGHT POLE 1 88 98 1 PAINTED 'x' ON BRIDGE PIER
1	RAILROAD TRACKS
	TIES NOT TO SCALE
1-481	- В STA. 2396+71.79
WITH CAP	IPTION: B POINT 237 IS REBAR P LOCATED BETWEEN (UNDER) I-481 DGES OVER RAILROAD TRACKS.
NYSPCS	CENTRAL ZONE NAD 83/CORS 2011 N: 1118270.6555 E: 961945.7705



Eŧ



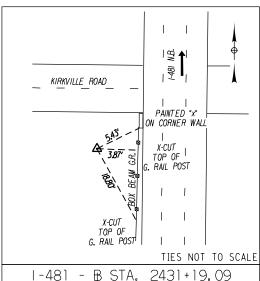
ONONDAGA

CULVERTS ALL DIMENSIONS IN ft LINLESS OTHERWISE NOTED I-81 VIADUCT PROJECT - PHASE 1, CONTRACT HIGHWAY BOUNDARY PLAN

CONTRACT NUMBER D900054 DRAWING NO.: 350190_C1-HBP

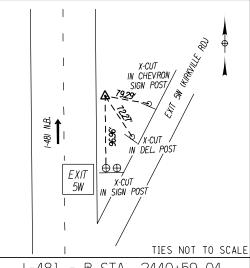
COUNTY: IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION. SHEET NO.: 28 NEW YORK Department of Transportation

+



I-481 - B STA. 2431+19.09 DESCRIPTION: B POINT G907 IS REBAR WITH ALLWINUM CAP LOCATED ON WESTERLY SIDE OF 1-481 NORTHBOUND AT SOUTH END OF BRIDGE OVER KIRKVILLE RD.

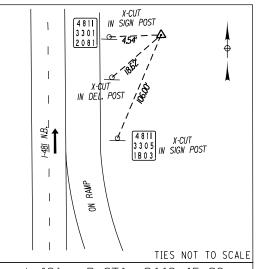
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1121706.9800 961783, 5321



- В STA. 2440+59.04

DESCRIPTION: B POINT G908 IS REBAR WITH ALUMINUM CAP LOCATED ON EASTERLY SIDE I-481 NORTHBOUND 270 FT. SOUTH OF ROUTE MARKER 4811/3301/2080.

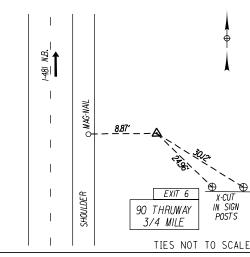
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1122646, 0866 N: 961823, 3037



I-481 - В STA. 2448+45.20 DESCRIPTION: B POINT 241 IS REBAR WITH CAP LOCATED ON EAST SIDE I-481 NORTHBOUND AT

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1123431,9656 961844, 4088

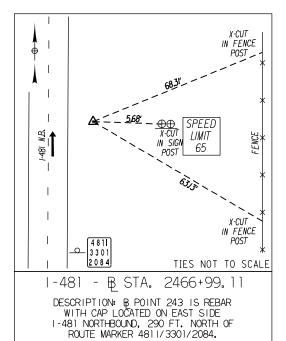
ROUTE MARKER 4811/3301/2081.



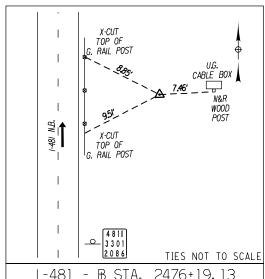
I-481 - В STA. 2457+79.17

DESCRIPTION: B POINT 242 IS REBAR WITH CAP LOCATED ON EAST SIDE I-481 NORTHBOUND, 25 FT. N.W. EXIT 6 SIGN

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1124365, 1208 N: 961805, 4386



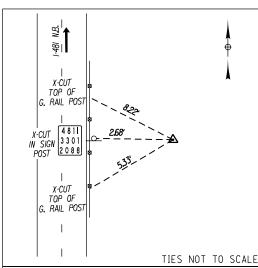
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1125284.9352 961790.3517



- B STA. 2476+19.13 1-481

DESCRIPTION: B POINT 244 IS REBAR WITH CAP LOCATED ON EAST SIDE 1-481 NORTHBOUND, 150 FT. NORTH OF ROUTE MARKER 4811/3301/2086.

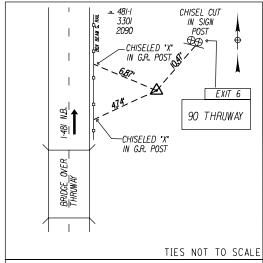
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1126204.9028 961780.6502



I-481 - β STA. 2485+85.93

DESCRIPTION: B POINT 245 IS REBAR WITH CAP LOCATED ON EAST SIDE 1-481 NORTHBOUND AT ROUTE MARKER 4811/3301/2088.

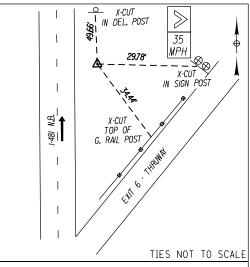
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 112171.6473 961769, 8595



I-481 - BSTA. 2495+37.74

DESCRIPTION: B POINT 246 IS A REBAR WITH CAP AND IS LOCATED ON EAST SIDE I-481 NORTHBOUND, 90' ± SOUTH OF ROUTE MARKER 4811/3301/2090.

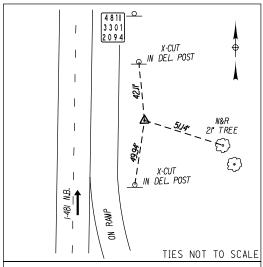
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1128123.3781 961757.8513 N₃ E₃



I-481 - В STA. 2504+59.15

DESCRIPTION: B POINT 247 IS A REBAR WITH CAP LOCATED ON EAST SIDE I-481 NORTHBOUND, 180 FT. SOUTH OF ROUTE MARKER 4811/3301/2092.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1129044.7019 E: 961744.7796



I-481 - B STA. 2514+02.59

DESCRIPTION: B POINT 248 IS REBAR WITH CAP LOCATED ON EAST SIDE OF I-481 NORTHBOUND, 290 FT. SOUTH OF ROUTE MARKER 4811/3301/2094.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1129988.0787 961755. 1225

570-1-5.11	(F.I.S.H. 68-4)	I.R.C. 570: COLLAMER	INTERCHANGE TO	PIN:
570-1-5.12	(F.I.S.H. 68-4)	NORTHERN BLVD.	(S.H. 82-7)	
570-1-5.13		I.R.C. 570: NORTHERN	BLVD. TO	
570-1-5.2	(F.I.S.H. 70-7)	BEAR ROAD	(S.H. 83-6)	
505-3-3.1	(F.A.S.H. 54-3)	I.R. 505-3-4.1	(F.I.S.H. 57-6)	VILLAGE:
				COUNTY:

3501.90 BRIDGES

ONONDAGA

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED I-81 VIADUCT PROJECT - PHASE 1, CONTRACT HIGHWAY BOUNDARY PLAN

CONTRACT NUMBER D900054 DRAWING NO.: 350190_C1-HBP

SHEET NO.: 29

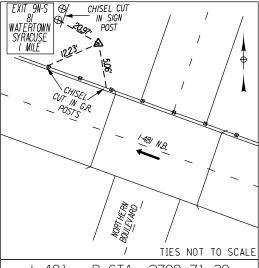
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



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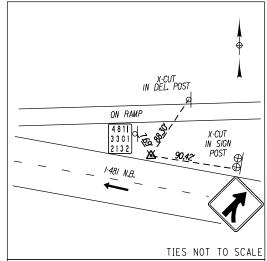
I-481 - B STA. 2700+.98.80 DESCRIPTION: B POINT 264 IS AN 18" REBAR WITH ALLMINUM CAP LOCATED ON I-481 NORTHBOUND AT ROUTE MARKER 4811/3301/2063.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1114069, 4424 954382, 1163



I-481 - B STA. 2708+71.39 DESCRIPTION: B POINT 265 IS AN 18" REBAR WITH ALUMINUM CAP LOCATED ON THE NORTHEASTERLY SIDE OF ROUTE 481 NB, AT THE NORTH END OF THE BRIDGE OF NORTHERN BLVD

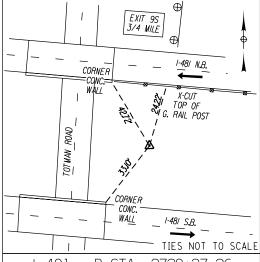
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1143330.4878 953654.9702



I-481 - В STA. 2716+98.30

DESCRIPTION: B POINT 266 IS REBAR WITH ALUMINUM CAP COCATED ON THE NORTHERLY SIDE OF I-481 NORTHBOUND AT ROUTE MARKER 4811/3301/2132.

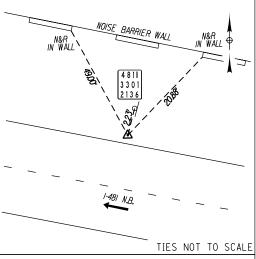
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1143596.0553 952871.8600



1-481 - B STA. 2728+27.26

DESCRIPTION: B POINT 267 IS REBAR WITH ALUMINUM CAP LOCATED IN 1-481 MEDIAN, AT SOUTH EASTERLY END OF BRIDGES OVER TOTMAN ROAD.

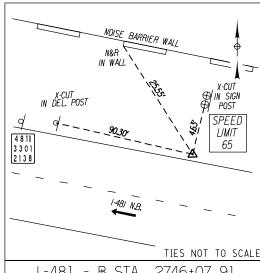
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1143814.5681 951764.2508



I-481 - B STA. 2738+27.89

DESCRIPTION: B POINT 268 IS REBAR WITH ALUMINUM CAP LOCATED ON NORTHERLY SIDE OF I-481 NORTHBOUND, AT ROUTE MARKER 4811/3301/2136.

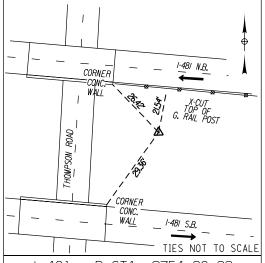
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1144108.8184 950807, 8625



I-481 - B STA. 2746+07.91

DESCRIPTION: B POINT 269 IS REBAR WITH ALUMINUM CAP LOCATED ON NORTHERLY SIDE OF 1-481 NORTHBOUND, 275 FT. EAST OF AT ROUTE MARKER 4811/3301/2138.

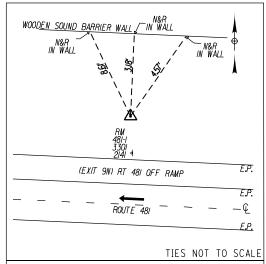
NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1144288.0496 E: 95048.7169



- B STA. 2754+30.33 1-481

DESCRIPTION: B POINT 270 IS REBAR WITH ALLMINUM CAP LOCATED IN 1-481 MEDIAN, AT EASTERLY END OF BRIDGES OVER THOMPSON ROAD.

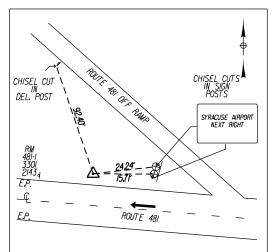
> NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1144412.9116 949235, 8293



I-481 - BSTA. 2764+48.71

DESCRIPTION: B POINT 271 IS A 30" LONG REBAR WITH CAP AND IS LOCATED ON ROUTE 481 AT ROAD MARKER 4811/3301/2141.

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1144730.8118 N: E: 948268, 3406

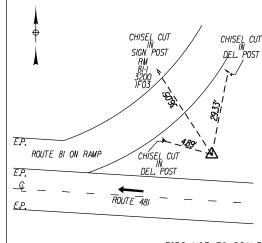


TIES NOT TO SCALE

I-481 - BSTA. 2773+06.71

DESCRIPTION: B POINT 272 IS A 30" LONG REBAR WITH CAP AND IS LOCATED ON ROUTE 481, 200' ± EAST OF ROAD MARKER 4811/3301/2143

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 N: 1144881.2051 E: 947423.6171



TIES NOT TO SCALE

I-481 - BSTA. 2779+49.62
DESCRIPTION: B POINT 273 IS A 30" LONG REBAR WITH CAP AND IS LOCATED ON ROUTE 481 ACROSS FROM ROAD MARKER 81-1/3200/1F03

NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1144960, 4815 946785.6183

I.R. 570-1-5.11	(F.I.S.H. 68-4)	I.R.C. 570: COLLAMER	INTERCHANGE TO	PIN:
I.R. 570-1-5.12	(F.I.S.H. 68-4)	NORTHERN BLVD.	(S.H. 82-7)	
I.R. 570-1-5.13		I.R.C. 570: NORTHERN	BLVD. TO	
I.R. 570-1-5.2	(F.I.S.H. 70-7)	BEAR ROAD	(S.H. 83-6)	TOWN:
I.R. 505-3-3.1	(F.A.S.H. 54-3)	I.R. 505-3-4.1	(F.I.S.H. 57-6)	VILLAGE.
				COUNTY:

3501.90 BRIDGES TOWN:

ONONDAGA

CULVERTS

ALL DIMENSIONS IN ft UNLESS OTHERWISE NOTED I-81 VIADUCT PROJECT - PHASE 1, CONTRACT HIGHWAY BOUNDARY PLAN

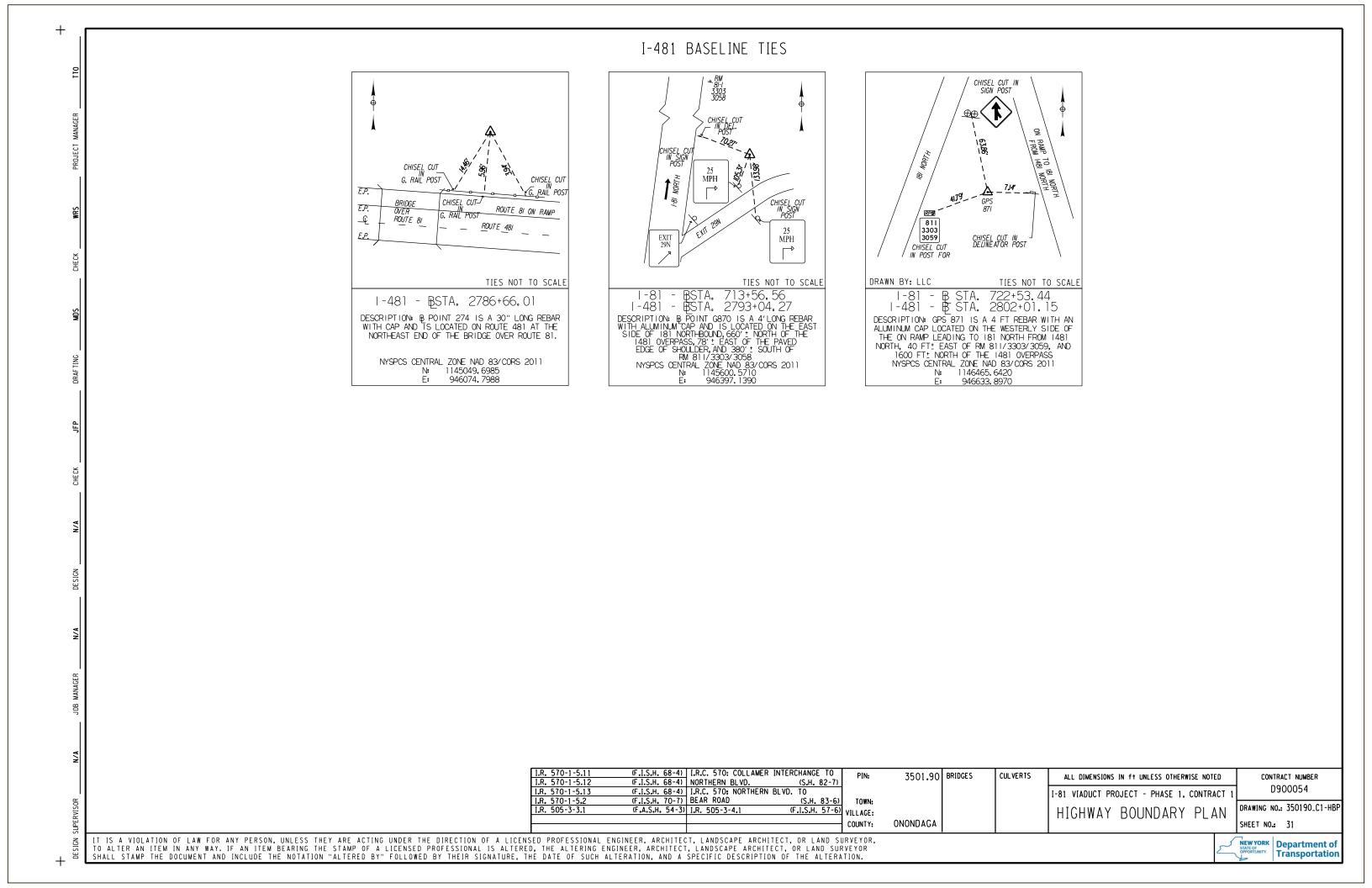
CONTRACT NUMBER D900054

DRAWING NO.: 350190_C1-HBP SHEET NO.: 30

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.



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ROW Acquisition Maps

I-81 VIADUCT PROJECT

Interstate Route 505-3-4.1

Interstate Route 505: Mattydale - Brewerton

F.I.S.H. 57-6

PIN 3501.98

(REPUTED OWNER)

MAP NO. 81-4400 PARCEL NO. 81-4400-WOA SHEET 1 OF 3 SHEETS

MAP REFERENCE INFORMATION: JERILEE M. STEVENS

(1) Part of Lot $\langle 79 \rangle$ of map entitled "Lang" Manor Tract, Section 3", filed May 23, 1979, CCM # 5774

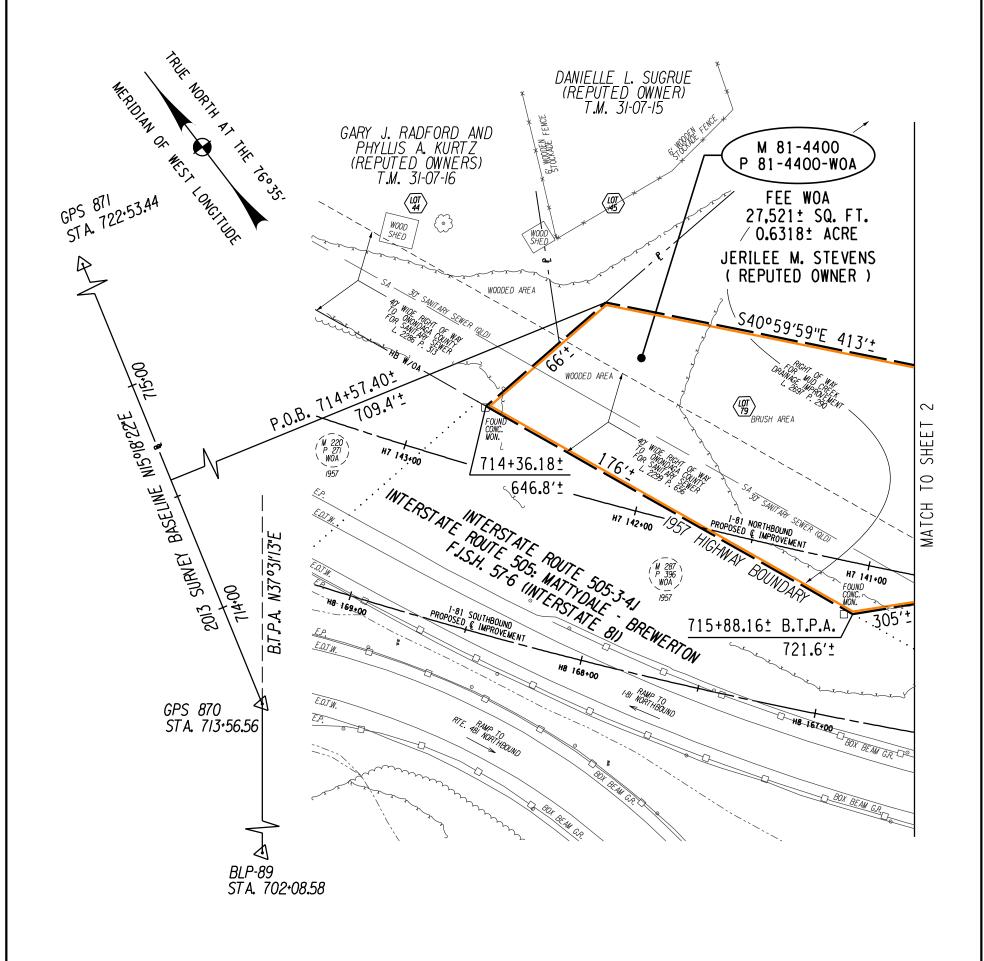
(2) Part of Military Lot 81 of the

Town of Cicero

CCD L. 4794 P. 414 TRN 4400

PARCEL SUMMARY Type: FEE WITHOUT ACCESS Portion of 2021 Tax Map Ref. No. 31-07-08.1 Town of Cicero County of Onondaga State of New York

Parcel Locator Point: Parcel No: 81-4400-WOA N: 1145510.58 E: 947107.98



WRS

ARM SHEET NO.: ARM-52 PREPARED BY MDS

B.T.P.A. = BACK TANGENT PRODUCED AHEAD

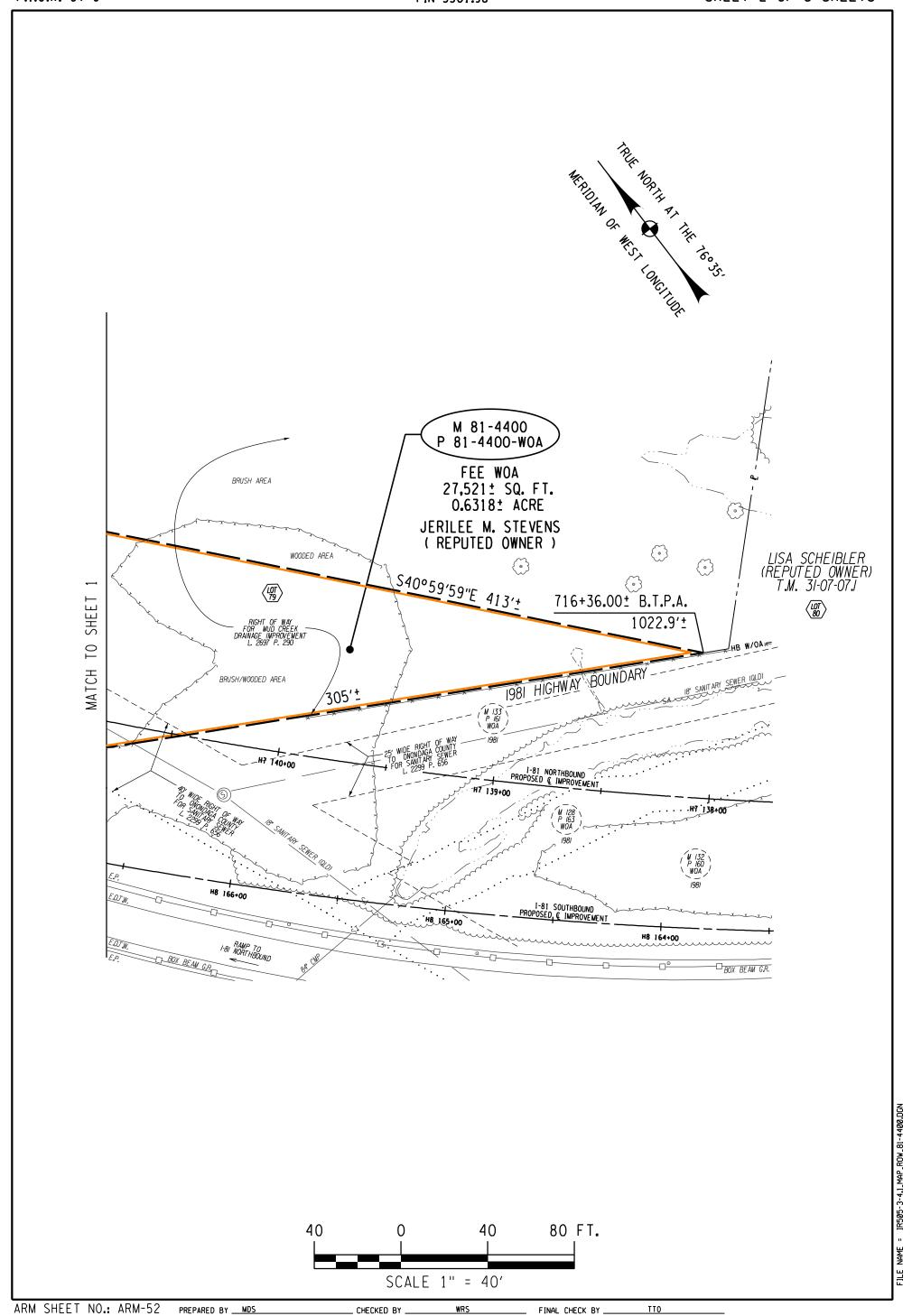
CHECKED BY _____

FINAL CHECK BY .

I-81 VIADUCT PROJECT
Interstate Route 505-3-4.1
Interstate Route 505: Mattydale - Brewerton

F.I.S.H. 57-6 PIN 3501.98

MAP NO. 81-4400 PARCEL NO. 81-4400-WOA SHEET 2 OF 3 SHEETS



I-81 VIADUCT PROJECT

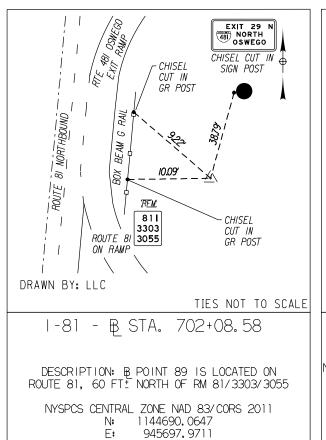
Interstate Route 505-3-4.1

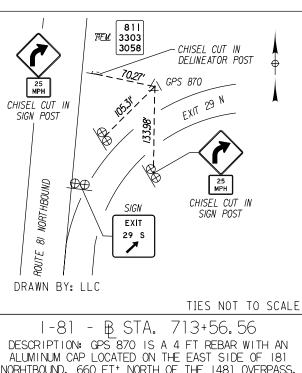
Interstate Route 505: Mattydale - Brewerton

F.I.S.H. 57-6

PIN 3501.98

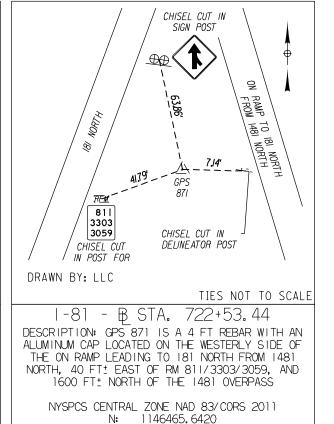
PARCEL NO. 81-4400-WOA SHEET 3 OF 3 SHEETS





NORHTBOUND, 660 FT± NORTH OF THE 1481 OVERPASS, 78 FT± EAST OF THE PAVED EDGE OF SHOULDER, AND 380 FT: SOUTH OF RM 811/3303/3058

> NYSPCS CENTRAL ZONE NAD 83/CORS 2011 1145600.5710 N 946397.1390



946633.8970

All that piece or parcel of property designated as Parcel No. 81-4400-WOA, as shown on the accompanying map, to be acquired in Fee, without right of access to and from abutting property.

SUBJECT TO utility easements and right-of-ways of record heretofore conveyed affecting the above described property.

I hereby certify that the property mapped above is necessary for this project, and the acquisition thereof is recommended.

AUG<u>UST 5, 2021</u>

Deorge a. Doucelle Ir George A. Doucette, Jr., P.E.

Regional Design Engineer

for the Regional Director of Transportation

Region No. 3



"Unauthorized alteration of a survey map bearing a licensed land surveyor's seal is a violation of the New York State Education Law."

I hereby certify that this map was prepared in accordance with current NYSDOT policies, standards and procedures.

JUL<u>Y 26, 20 21</u>

Popli Design Group

By: Timothy T. Odell, Land Surveyor P.L.S. License No. 50995

JERILEE M. STEVENS (REPUTED OWNER)

Map of property which the Commissioner of Transportation deems necessary to be acquired by appropriation in the name of the People of the State of New York in fee, without right of access to and from abutting property, except for the purposes of the rights described above, for purposes connected with the highway system of the State of New York pursuant to Sections 30 and 340-B of the Highway Law and the Eminent Domain Procedure Law.

There is excepted from this appropriation all the right, title and interest, if any, of the United States of America in or to said property.

Pursuant to the statute(s) set forth above and the authority delegated to me by Official Order of the Commissioner of Transportation, this acquisition map is hereby approved and filed in the main office of the New York State Department of Transportation.

I have compared the foregoing copy of the map with the original thereof, as filed in the Office of the State Department of Transportation, and I do hereby certify the same to be a true and correct copy of the original and the whole thereof.

Date	20

Office of Right-of-Way , Office of Right-of-Way

WRS TT0 PREPARED BY MDS CHECKED BY ____ FINAL CHECK BY ____

I-81 VIADUCT PROJECT Interstate Route 505-3-4.1

MAP NO. 81-4401 PARCEL NO. 81-4401-WOA Interstate Route 505: Mattydale - Brewerton F.I.S.H. 57-6 SHEET 1 OF 2 SHEETS PIN 3501.98 DANIELLE L. SUGRUE AND MAP REFERENCE INFORMATION: PARCEL SUMMARY NICHOLAS SUGRUE (1) Lot (45) of map entitled "Lang Manor Type: FEE WITHOUT ACCESS (REPUTED OWNERS) Tract, Section 2", filed May 23, 1979, Portion of 2021 Tax Map Ref. No. 31-07-15 CCM # 5773 CCD INSTR. NO. 2021-00020109 Town of Cicero MERIDIAN OF WEST LONGITUDE (2) Part of Military Lot 81 of the TRN 4401 County of Onondaga Town of Cicero State of New York NORTH AT THE Parcel Locator Point: Parcel No: 81-4401-WOA N: 1145528.03 E: 947092.81 76°35' GPS 871 STA. 722+53.44 P00L T.M. 31-07-19 ASPHALT 717+00 BASELINE NI5º18'22"E T.M. 31-07-18 (10T) 42 SURVEY T.M. 31-07-17 () 10° 4SPHALT DRIVE GARY J. RADFORD

AND PHYLLIS A. KURTZ

(REPUTED OWNERS) M 81-4401 T.M. 31-07-16 P 81-4401-WOA FEE WOA 235 SQ. FT. 0.0054± ACRE DANIELLE L. SUGRUE AND 715-00 NICHOLAS SUGRUE (LOT 44) (REPUTED OWNERS) S40°59'59"E P.O.B. 714+70.23± 690.2′± X-1800/31 SOLITORNO To say to the 714+57**.**40± 26'+ M 220 P 271 WOA 1957 709.4'± BRUSH/WOODED AREA 714+49.18± 685.1'± JERILEE M. STEVENS (REPUTED OWNER) T.M. 31-07-08. 714.00 RAJEWAY EDER FILE NAME = IR505-3-4.1_MAP_R0W_81-4401.DGN GPS 870 STA. 713+56.56 80 FT. 40 40

SCALE 1'' = 40'

NAME = IR505-3-4.1_MAP_ROW_81-4401.0GN

NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACQUISITION MAP

I-81 VIADUCT PROJECT

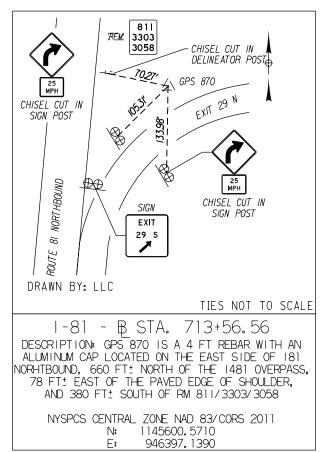
Interstate Route 505-3-4.1

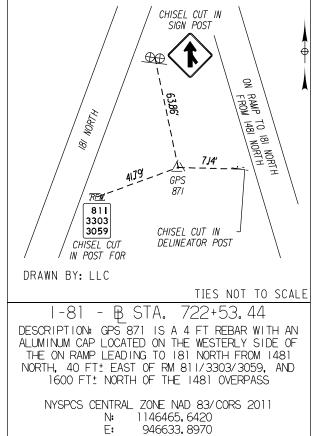
Interstate Route 505: Mattydale - Brewerton

F.I.S.H. 57-6

PIN 3501.98

MAP NO. 81-4401 PARCEL NO. 81-4401-WOA SHEET 2 OF 2 SHEETS





All that piece or parcel of property designated as Parcel No. 81-4401-WOA, as shown on the accompanying map, to be acquired in Fee, without right of access to and from abutting property.

SUBJECT TO utility easements and right-of-ways of record heretofore conveyed affecting the above described property.

I hereby certify that the property mapped above is necessary for this project, and the acquisition thereof is recommended.

AUG<u>UST 5, 2021</u>

Dange a. Doucalla George A. Doucette, Jr., P.E.

Regional Design Engineer for the Regional Director of Transportation

Region No. 3



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I hereby certify that this map was prepared in accordance with current NYSDOT policies, standards and procedures.

JUL<u>Y 26, 20 21</u>

Popli Design Group

By: Timothy T. Odell, Land Surveyor P.L.S. License No. 50995

DANIELLE L. SUGRUE AND NICHOLAS SUGRUE (REPUTED OWNERS)

Map of property which the Commissioner of Transportation deems necessary to be acquired by appropriation in the name of the People of the State of New York in fee, without right of access to and from abutting property, except for the purposes of the rights described above, for purposes connected with the highway system of the State of New York pursuant to Sections 30 and 340-B of the Highway Law and the Eminent Domain Procedure Law.

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Pursuant to the statute(s) set forth above and the authority delegated to me by Official Order of the Commissioner of Transportation, this acquisition map is hereby approved and filed in the main office of the New York State Department of Transportation.

I have compared the foregoing copy of the map with the original thereof, as filed in the Office of the State Department of Transportation, and I do hereby certify the same to be a true and correct copy of the original and the whole thereof.

Date	20

Office of Right-of-Way , Office of Right-of-Way

MDS WRS TTO PREPARED BY ____ __ CHECKED BY ____ FINAL CHECK BY ____

I-81 VIADUCT PROJECT Interstate Route 505-3-4.1 Interstate Route 505: Mattydale - Brewerton F.I.S.H. 57-6

PREPARED BY ____

MDS

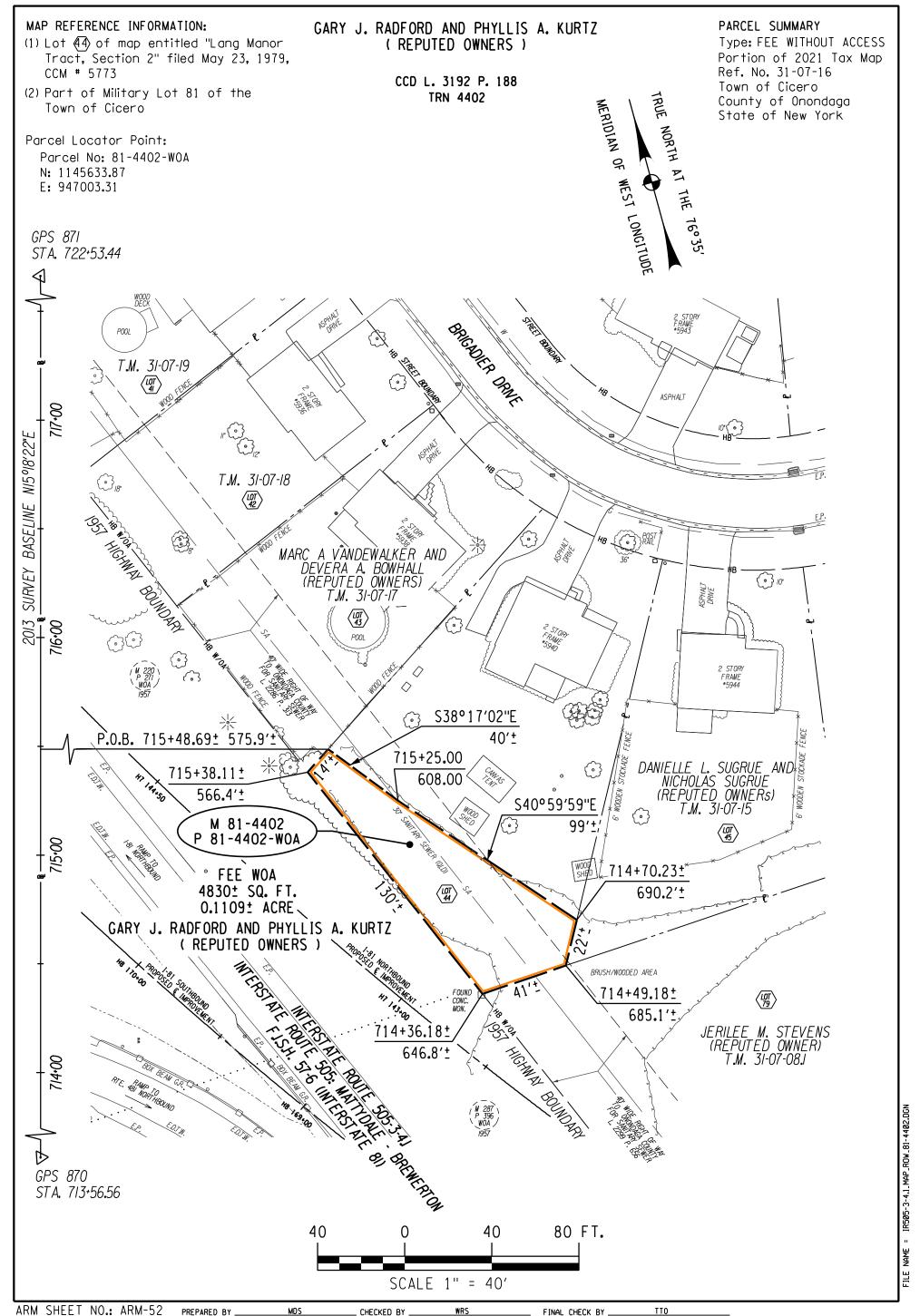
CHECKED BY ____

WRS

FINAL CHECK BY _

MAP NO. 81-4402 PARCEL NO. 81-4402-WOA SHEET 1 OF 2 SHEETS

PIN 3501.98



NAME = IR505-3-4.1_MAP_ROW_81-4402.DGN

NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACQUISITION MAP

I-81 VIADUCT PROJECT

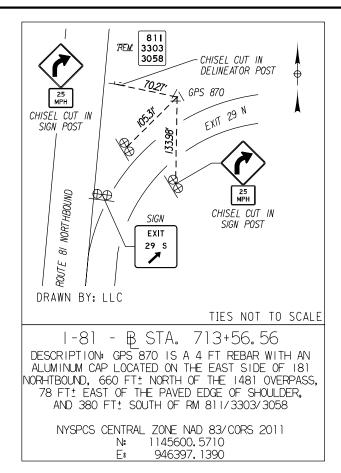
Interstate Route 505-3-4.1

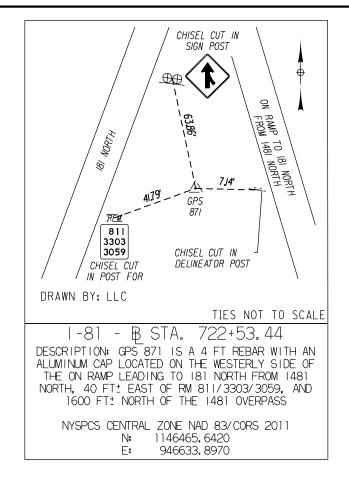
Interstate Route 505: Mattydale - Brewerton

F.I.S.H. 57-6

PIN 3501.98

MAP NO. 81-4402 PARCEL NO. 81-4402-WOA SHEET 2 OF 2 SHEETS





All that piece or parcel of property designated as Parcel No. 81-4402-WOA, as shown on the accompanying map, to be acquired in Fee, without right of access to and from abutting property.

SUBJECT TO utility easements and right-of-ways of record heretofore conveyed affecting the above described property.

I hereby certify that the property mapped above is necessary for this project, and the acquisition thereof is recommended.

AUGUST 5, 2021

Dange a. Doucalla George A. Doucette, Jr., P.E.

Regional Design Engineer

for the Regional Director of Transportation Region No. 3



"Unauthorized alteration of a survey map bearing a licensed land surveyor's seal is a violation of the New York State Education Law."

I hereby certify that this map was prepared in accordance with current NYSDOT policies, standards and procedures.

JUL<u>Y 26, 20 21</u>

Popli Design Group

By: Timothy T. Odell, Land Surveyor P.L.S. License No. 50995

GARY J. RADFORD AND PHYLLIS A. KURTZ (REPUTED OWNERS)

Map of property which the Commissioner of Transportation deems necessary to be acquired by appropriation in the name of the People of the State of New York in fee, without right of access to and from abutting property, except for the purposes of the rights described above, for purposes connected with the highway system of the State of New York pursuant to Sections 30 and 340-B of the Highway Law and the Eminent Domain Procedure Law.

There is excepted from this appropriation all the right, title and interest, if any, of the United States of America in or to said property.

Pursuant to the statute(s) set forth above and the authority delegated to me by Official Order of the Commissioner of Transportation, this acquisition map is hereby approved and filed in the main office of the New York State Department of Transportation.

I have compared the foregoing copy of the map with the original thereof, as filed in the Office of the State Department of Transportation, and I do hereby certify the same to be a true and correct copy of the original and the whole thereof.

Date	20

Office of Right-of-Way

PREPARED BY	MDS	CHECKED BY	WRS	FINAL CHECK BY _	TT0
				-	

, Office of Right-of-Way

I-81 VIADUCT PROJECT

Interstate Route 505-3-4.1

Interstate Route 505: Mattydale - Brewerton

ARM SHEET NO.: ARM-52 PREPARED BY _____MDS

MAP NO. 81-4403 PARCEL NO. 81-4403-WOA

F.I.S.H. 57-6 SHEET 1 OF 2 SHEETS PIN 3501.98 MAP REFERENCE INFORMATION: PARCEL SUMMARY MARC A. VANDEWALKER DEVERA A. BOWHALL Type: FEE WITHOUT ACCESS (1) Lot 43 of map entitled "Lang Manor Tract" (REPUTED OWNERS) Portion of 2021 Tax Map filed May 23, 1979, CCM # 5773 Ref. No. 31-07-17 (2) Part of Military Lot 81 of the CCD L. 3971 P. 132 Town of Cicero MERIDIAN OF WEST LONGITUDE Town of Cicero TRN 4403 County of Onondaga State of New York NORTH AT THE Parcel Locator Point: Parcel No: 81-4403-WOA N: 1145675.28 E: 946970.63 76°35′ GPS-871 STA. 722+53.44 T.M. 31-07-19 ASPHALT 717-00 N15º18'22"E MICHAEL WOLICKI (REPUTED OWNER) T.M. 31-07-18 $\left\langle \begin{smallmatrix} LQT\\42 \end{smallmatrix} \right\rangle$ BASELINE SURVEY $\left\langle \begin{smallmatrix} LOT\\43\end{smallmatrix} \right\rangle$ () v 4SPHALT DRIVE 2013 716÷00 (B)(B) 2 STORY FRAME *5944 ♦ GARY J. RADFORD AND S38°17′02"E VP.0.B. 715+80.00± 533.4′ PHYLLIS A. KURTZ (REPUTED OWNERS) T.M. 31-07-16 (LOT 44 715+48.69± 715+38.11± 47 189.50 566.4'± 14'± T.M. 31-07-15 M 81-4403 (10T) 45 P 81-4403-WOA 715+00 6' WOODEN STOCKADE FENCE FEE WOA 372 SQ. FT. MARC A. VANDEWALKER DEVERA A. BOWHALL • (REPUTED OWNERS) `_x T.M. 31-07-08.1 BRUSH/WOODED AREA FILE NAME = IR505-3-2,1000_MAP_ROW_81-4403,DGN GPS-870 STA. 713+56.56 40 40 80 FT. SCALE 1'' = 40'

CHECKED BY ____

WRS

FINAL CHECK BY _

NAME = IR505-3-2,1000_MAP_ROW_81-4403,DGN

NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACQUISITION MAP

I-81 VIADUCT PROJECT

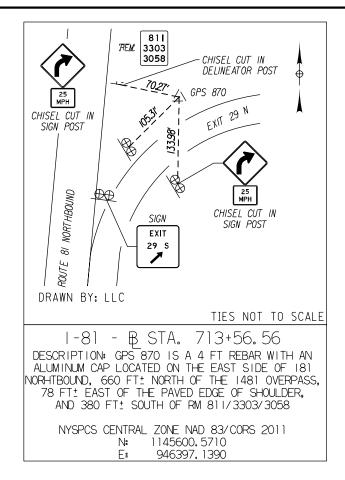
Interstate Route 505-3-4.1

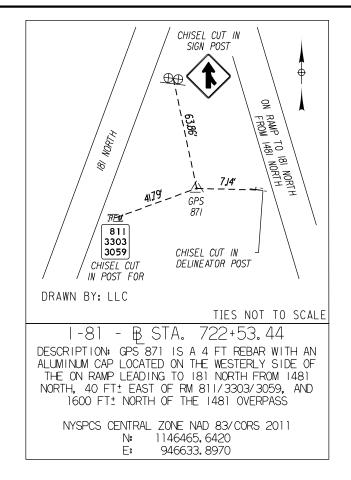
Interstate Route 505: Mattydale - Brewerton

F.I.S.H. 57-6

PIN 3501.98

MAP NO. 81-4403 PARCEL NO. 81-4403-WOA SHEET 2 OF 2 SHEETS





All that piece or parcel of property designated as Parcel No. 81-4403-WOA, as shown on the accompanying map, to be acquired in Fee, without right of access to and from abutting property.

SUBJECT TO utility easements and right-of-ways of record heretofore conveyed affecting the above described property.

I hereby certify that the property mapped above is necessary for this project, and the acquisition thereof is recommended.

Date _____AUGUST 5, 2021

George A. Doucette, Jr., P.E.

Regional Design Engineer

for the Regional Director of Transportation

Region No. 3



"Unauthorized alteration of a survey map bearing a licensed land surveyor's seal is a violation of the New York State Education Law."

I hereby certify that this map was prepared in accordance with current NYSDOT policies, standards and procedures.

Date ______ JULY 26, 20 <u>21</u>

Popli Design Group

By: Timothy T. Odell, Land Surveyor P.L.S. License No. 50995

MARC A. VANDEWALKER DEVERA A. BOWHALL (REPUTED OWNERS)

Map of property which the Commissioner of Transportation deems necessary to be acquired by appropriation in the name of the People of the State of New York in fee, without right of access to and from abutting property, except for the purposes of the rights described above, for purposes connected with the highway system of the State of New York pursuant to Sections 30 and 340-B of the Highway Law and the Eminent Domain Procedure Law.

There is excepted from this appropriation all the right, title and interest, if any, of the United States of America in or to said property.

Pursuant to the statute(s) set forth above and the authority delegated to me by Official Order of the Commissioner of Transportation, this acquisition map is hereby approved and filed in the main office of the New York State Department of Transportation.

I have compared the foregoing copy of the map with the original thereof, as filed in the Office of the State Department of Transportation, and I do hereby certify the same to be a true and correct copy of the original and the whole thereof.

Date	20

, Office of Right-of-Way	Office of	Right-of-Way

PREPARED BY ______ MDS ____ CHECKED BY _____ WRS ____ FINAL CHECK BY _____ TTO

I-81 VIADUCT PROJECT

ARM SHEET NO.: ARM-47

PREPARED BY _

MDS

Interstate Route 505-3-4.1

Interstate Route 505: Mattydale - Brewerton

MAP NO. 81-4404 PARCEL NO. 81-4404-WOA

F.I.S.H. 57-6 SHEET 1 OF 2 SHEETS PIN 3501.98 MAP REFERENCE INFORMATION: MARGARET L. MALONEY, MARY E. MALONEY, PARCEL SUMMARY THOMAS M. MALONEY, AS JOINT Type: FEE WITHOUT ACCESS Part of Military Lot 80 of the TENANTS WITH RIGHT OF SURVIVORSHIP Portion of 2021 Tax Map Town of Cicero Ref. No. 022-01-07.0 (REPUTED OWNERS) Village of North Syracuse Parcel Locator Point: Town of Cicero CCD INSTR. NO. 2021-00060840 Parcel No: 81-4404-WOA County of Onondaga TRN 4404 N: 1141954.54 State of New York E: 944079.80 WEST LONGITUDE 76°35′ NORTH AT THE BLP 86 P STA. 674-17.77 MERIDIAN M 81-4404 81-4404-WOA TRUE PAVEMENT EDGE TO BOX BEAM GR. EDGE TRAVELWAY EDGE TRAVELWA) FEE WOA TO BREWERTON I-81 NORTHBOUND 2,084± SQ. FT. MARGARET L. MALONEY, MARY E. MALONEY, DITCH THOMAS M. MALONEY, AS JOINT TENANTS WITH RIGHT OF SURVIVORSHIP E 505: MATTYDALE BREWERTON 57-6 (INTERSTATE 81) SURVEY BASELINE N5º2747'E (REPUTED OWNERS) -00-029_ FRANCIS E. MALONEY (REPUTED OWNER) T.M. 022.-01-06 AGRIGULTURAL FIELD 669+73.56± P.O.B. 669+54.65± 144.7′± 21.4′± 125′± S3°15′12"E N 202 P 250 WOA MILITARY LOT 80 INTERSTATE ROUTE 505. F.1S.H. 57-6 (IN VILLAGE OF NORTH SYRACUSE 1957 TOWN OF CICERO 128'± 6 CHAIN LINK (°) MILITARY LOT 92 ,669+57**.**25± SHED 147.2'± ΠNK 669+37.89± SA CASING 6' CHÂIN 20.9'± LOUIS MAZIETTI AND FROSE G. MANZIETTI (REPUTED OWNER) T.M. 023.-01-19 DITCH | |} | AMANDA-LEA HOFFMAN | REPUTED OWNER) | (REPU |} | T.M. 023.-01-20 | T.M MICHAEL TAGLIMONTE * (REPUTED OWNER) | L_T.M. 023.-01-18 T.M. 023.-01-17 SOUTHBOUND TO MATTYDALE BOUNDÁRY BLP 85 STA. 668-38.26 HIGHWAY— I STORY FRAME *172 I STORY FRAME *170 00-89 928 / M 200 \ P 248 \ VERADA AVENUE (60' WIDE) BLP 84 STA. 662+36.90 FILE NAME = IR505-3-4,1_MAP_R0W_81-4404,DG 40 40 80 FT.

SCALE 1'' = 40'

WRS

FINAL CHECK BY

CHECKED BY _

AME = IR505-3-4.1.MAP_ROW_81-4404.DGN

NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACQUISITION MAP

I-81 VIADUCT PROJECT

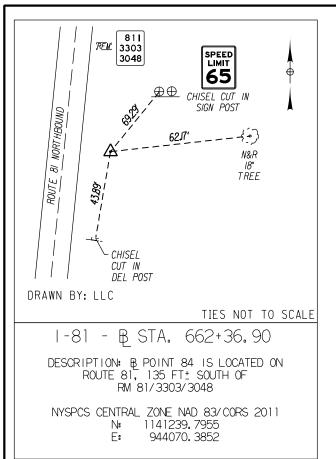
Interstate Route 505-3-4.1

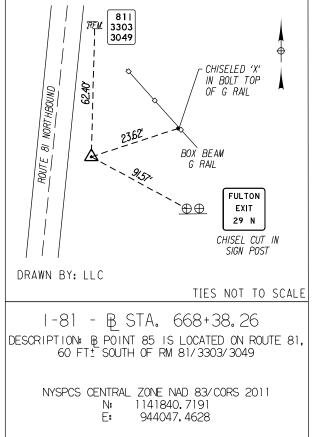
Interstate Route 505: Mattydale - Brewerton

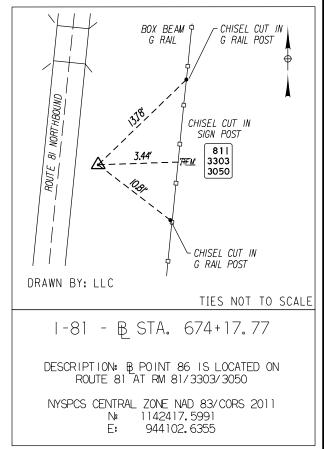
F.I.S.H. 57-6

PIN 3501.98

MAP NO. 81-4404 PARCEL NO. 81-4404-WOA SHEET 2 OF 2 SHEETS







All that piece or parcel of property designated as Parcel No. 81-4404-WOA, as shown on the accompanying map, to be acquired in Fee, without right of access to and from abutting property.

SUBJECT TO utility easements and right-of-ways of record heretofore conveyed affecting the above described property.

I hereby certify that the property mapped above is necessary for this project, and the acquisition thereof is recommended.

Date _____AUGUST 13, 20 21

George A. Doucette, Jr., P.E.

Regional Design Engineer for the Regional Director of Transportation

Region No. 3



"Unauthorized alteration of a survey map bearing a licensed land surveyor's seal is a violation of the New York State Education Law."

I hereby certify that this map was prepared in accordance with current NYSDOT policies, standards and procedures.

Date _____AUGUST 12, 20 21

Popli Design Group

By: Timothy T. Odell, Land Surveyor P.L.S. License No. 50995

MARGARET L. MALONEY, MARY E. MALONEY, THOMAS M. MALONEY, AS JOINT TENANTS WITH RIGHT OF SURVIVORSHIP (REPUTED OWNERS)

Map of property which the Commissioner of Transportation deems necessary to be acquired by appropriation in the name of the People of the State of New York in fee, without right of access to and from abutting property, except for the purposes of the rights described above, for purposes connected with the highway system of the State of New York pursuant to Section 30 of the Highway Law and the Eminent Domain Procedure Law.

There is excepted from this appropriation all the right, title and interest, if any, of the United States of America in or to said property.

Pursuant to the statute(s) set forth above and the authority delegated to me by Official Order of the Commissioner of Transportation, this acquisition map is hereby approved and filed in the main office of the New York State Department of Transportation.

I have compared the foregoing copy of the map with the original thereof, as filed in the Office of the State Department of Transportation, and I do hereby certify the same to be a true and correct copy of the original and the whole thereof.

Date	20

, Office of Right-of-Way	Office of Right-of-Wa

PREPARED BY ______ MDS ____ CHECKED BY _____ FINAL CHECK BY _____ TTO

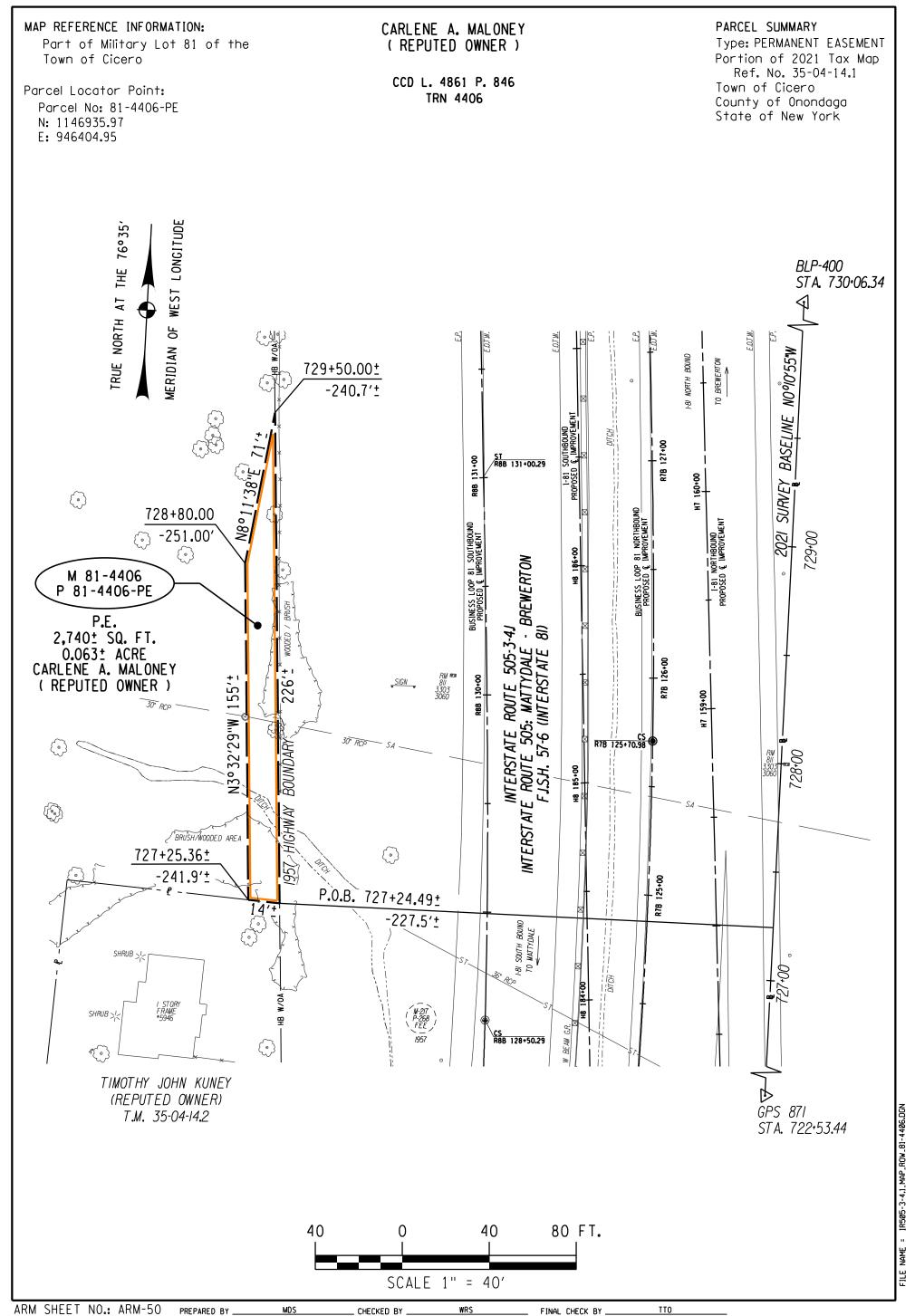
I-81 VIADUCT PROJECT

Interstate Route 505-3-4.1

Interstate Route 505: Mattydale - Brewerton F.I.S.H. 57-6

PIN 3501.98

MAP NO. 81-4406 PARCEL NO. 81-4406-PE SHEET 1 OF 2 SHEETS



CHECKED BY ____

WRS

FINAL CHECK BY _

PREPARED BY ____

MDS

FILE NAME = IR505-3-4,1_MAP_ROW_81-4406.DGN

NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACQUISITION MAP

I-81 VIADUCT PROJECT

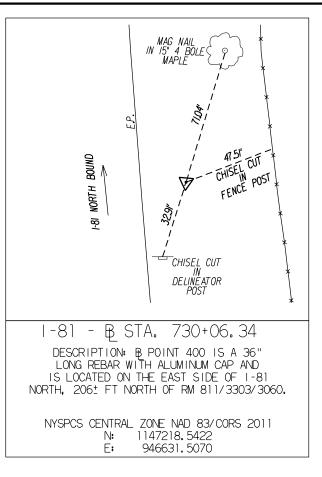
Interstate Route 505-3-4.1

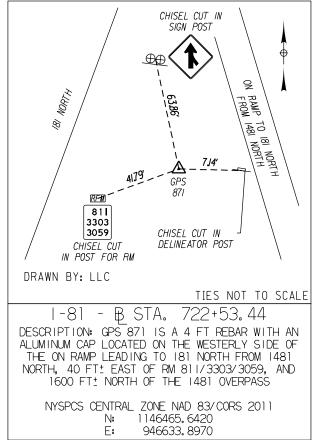
Interstate Route 505: Mattydale - Brewerton

F.I.S.H. 57-6

PIN 3501.98

MAP NO. 81-4406 PARCEL NO. 81-4406-PE SHEET 2 OF 2 SHEETS





PERMANENT EASEMENT FOR DRAINAGE DITCH AND DRAINAGE STRUCTURE

A permanent easement to be exercised in, on and over the property above delineated for the purpose of constructing, reconstructing and maintaining thereon a drainage ditch and drainage structures, together with appurtenances, in and to all that piece or parcel of property designated as Parcel No. 81-4406-PE, as shown on the accompanying map.

RESERVING, however, to the owner of any right, title or interest in and to the property delineated as Parcel No. 81-4406-PE above, and such owner's successors or assigns, the right of access and the right of using said property and such use shall not be further limited or restricted under this easement beyond that which is necessary to effectuate its purposes for, and as established by, the construction or reconstruction and as so constructed or reconstructed, the maintenance, of the herein identified project.

I hereby certify that the property mapped above is necessary for this project, and the acquisition thereof is recommended.

Date _____AUGUST 13, 2021

George A. Doucette, Jr., P.E.

Regional Design Engineer

for the Regional Director of Transportation

Region No. 3



CARLENE A. MALONEY (REPUTED OWNER)

"Unauthorized alteration of a survey map bearing a licensed land surveyor's seal is a violation of the New York State Education Law."

I hereby certify that this map was prepared in accordance with current NYSDOT policies, standards and procedures.

Date _____AUGUST 12, 20 21

Popli Design Group

By: Timothy T. Odell, Land Surveyor P.L.S. License No. 50995

Map of property in and to which an easement as herein above defined is deemed necessary by the Commissioner of Transportation to be acquired by appropriation in the name of the People of the State of New York for purposes connected with the highway system of the State of New York pursuant to Sections 30 and 340-B of the Highway Law and the Eminent Domain Procedure Law.

There is excepted from this appropriation all the right, title and interest, if any, of the United States of America in or to said property.

Pursuant to the statute(s) set forth above and the authority delegated to me by Official Order of the Commissioner of Transportation, this acquisition map is hereby approved and filed in the main office of the New York State Department of Transportation.

I have compared the foregoing copy of the map with the original thereof, as filed in the Office of the State Department of Transportation, and I do hereby certify the same to be a true and correct copy of the original and the whole thereof.

, Office of Right-of-Way	Office of R	ight-of-Wa؛

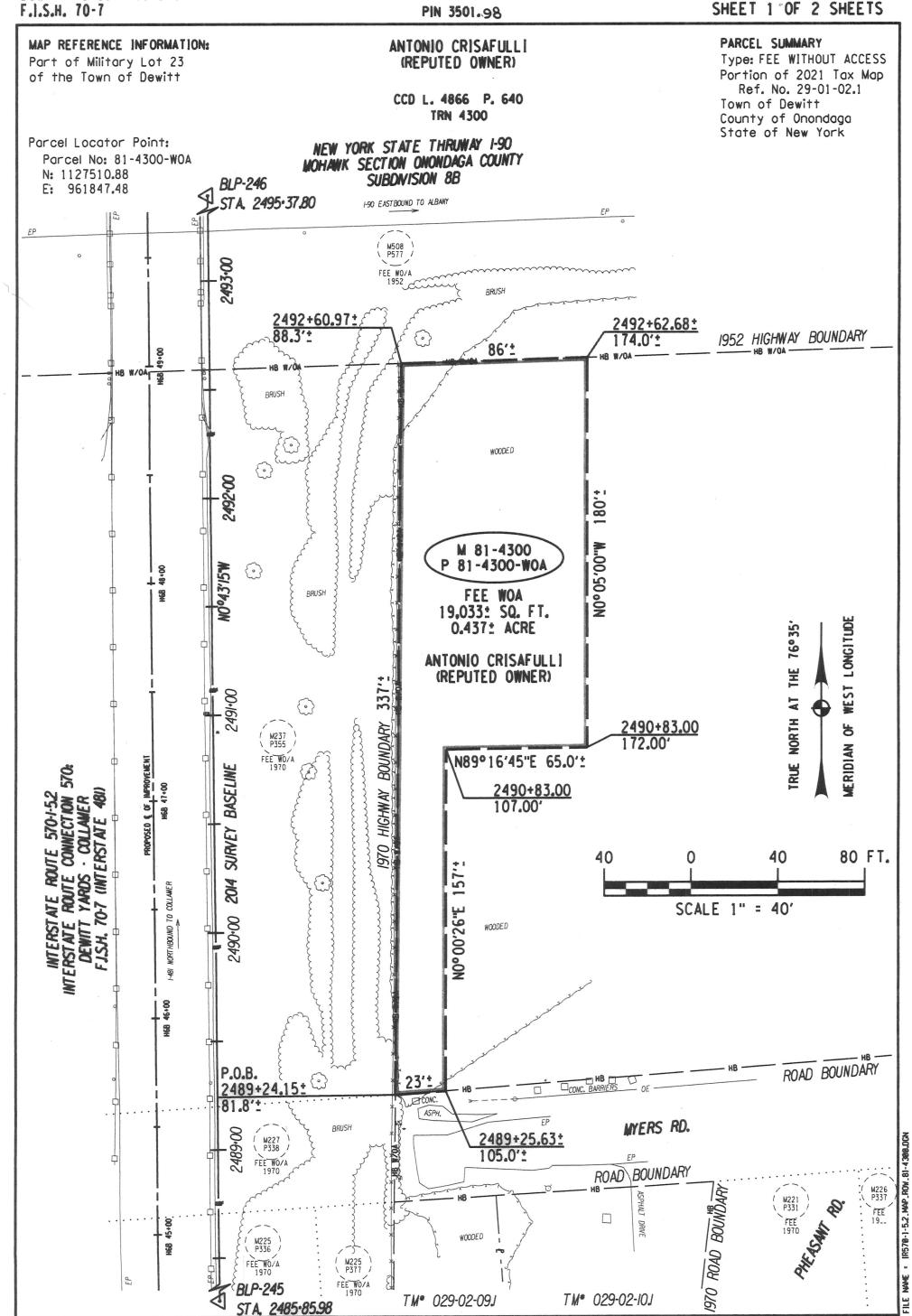
PREPARED BY ______ CHECKED BY _____ WRS ___ FINAL CHECK BY _____ TTO

1-81 VIADUCT PROJECT Interstate Route 570-1-5.2 Interstate Route Connection 570: Dewitt Yards - Collamer

ARM SHEET NO.: ARM-53

PREPARED BY

MAP NO. 81-4300 PARCEL NO. 81-4300-WOA



BGP

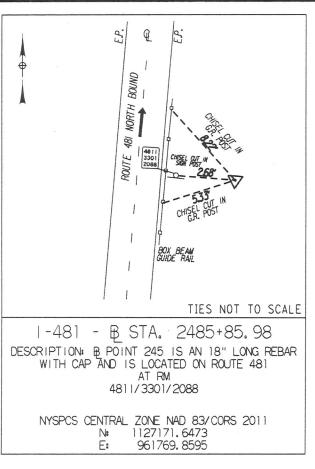
CHECKED BY

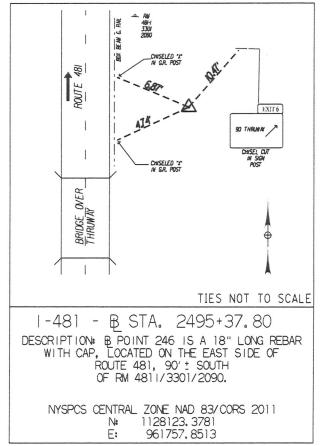
FINAL CHECK BY

I-81 VIADUCT PROJECT
Interstate Route 570-1-5.2
Interstate Route Connection 570:
Dewitt Yords - Collamer
F.L.S.H. 70-7

PIN 3501.98

MAP NO. 81-4300 PARCEL NO. 81-4300-WOA SHEET 2°OF 2 SHEETS





All that piece or parcel of property designated as Parcel No. 81-4300-WOA, as shown on the accompanying map, to be acquired in Fee, without right of access to and from abutting property.

SUBJECT TO utility easements and right-of-ways of record heretofore conveyed affecting the above described properly.

I hereby certify that the property mapped above is necessary for this project, and the acquisition thereof is recommended.

Date NOVEMBER 12 20 21

George a. Doucatta fr.

George A. Doucette, Jr., P.E. Regional Design Engineer for the Regional Director of Transportation Region No. 3



"Unauthorized alteration of a survey map bearing a licensed land surveyor's seal is a violation of the New York State Education Law."

I hereby certify that this map was prepared in accordance with current NYSDOT policies, standards and procedures.

Date NOVEMBER 17, 20 21

Prudent Engineering LLP
Engineering and Land Surveying
By Bradley G. Pcolinsky, Land Surveyor
L.S. License No. 050697

ANTONIO CRISAFULLI (REPUTED OWNER)

Map of property which the Commissioner of Transportation deems necessary to be acquired by appropriation in the name of the People of the State of New York in fee, without right of access to and from abutting property, except for the purposes of the rights described above, for purposes connected with the highway system of the State of New York pursuant to Sections 30 and 340-B of the Highway Law and the Eminent Domain Procedure Law.

There is excepted from this appropriation all the right, title and interest, if any, of the United States of America in or to said property.

Pursuant to the statute(s) set forth above and the authority delegated to me by Official Order of the Commissioner of Transportation, this acquisition map is hereby approved and filed in the main office of the New York State Department of Transportation.

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Office	of	Right-of-Way

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PREPARED BY	PRP	CHECKED BY	BGP	FINAL CHECK BY	MAV	

, Office of Right-of-Way